Mapping the Epistemological Diversity of Chinese Medicine; a Q Methodology Study

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Abstract

The diversity of medical practice has been widely documented in ethnographic and historical studies; what remains is to map out that diversity. In this research how such diversity manifests is elicited through asking practitioners their perspectives of how biomedicine influences their Chinese medicine practice. This starting point is chosen since the global dominance of biomedicine inevitably impacts, to varying degrees, on Chinese medicine practices. Q methodology, a unique combination of quantitative and qualitative methods (that challenges such divisions) is chosen for its ability to attain and describe a wide diversity of different subjective perspectives on a topic. Furthermore, this method allows these to arise from the data without *a priori* definition by the researcher. However, whilst looking at subjective opinions it is not interested in who said what, but rather what is being said about the topic. For subjectivity is seen to be forged in the social milieu; what is of interest is how such opinions group. Acknowledging that Chinese medicine today is not, of course, contained within Chinese borders, international perspectives are sought. The commonly accepted view that the two medical systems, biomedicine and Chinese medicine, used together lead to greater clarity of the whole is challenged, on epistemological grounds, drawing on theories of knowing found in the Chinese medicine literature. Six distinct practices of Chinese medicine were found and described using the term enactment. It is proposed that practitioners can access the differing inter-subjectively formed Chinese medicines using the patient body as a boundary object. Through capturing the richness and complexity of various points of view this research can identify points of both conflict and consensus that can offer directions for future practice, education and particularly clinical research design. It offers a contribution to the Q methodology literature through applying method assemblage in the analysis of factors. Thus, the neutral zone is rendered as important in understanding the narrative of the factor as are the points of most and least agreement.

Table of Contents

List of Tables

List of Figures

Preface

The following quote, attributed by Doctor Franz Kuhn to a certain Chinese encyclopaedia entitled, 'Celestial Empire of Benevolent Knowledge,' illustrates a certain way of knowing that is so very different from animal classifications commonly used today. In its remote pages it is written that the animals are divided into:

(a) belonging to the emperor, (b) embalmed, (c) tame, (d) sucking pigs, (e) sirens, (f) fabulous, (g) stray dogs, (h) included in the present classification, (i) frenzied, (j) innumerable, (k) drawn with a very fine camelhair brush, (l) et-cetera, (m) having just broken the water pitcher, (n) that from a long way off look like flies.

How can such a list not intrigue, perplex and lead to a questioning of one’s own accepted classificatory scheme?

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Author's Declaration

I declare that all the material contained in this thesis is my own work.

Definitions

Q terminology	Definition
Concourse	Meaning that can be communicated on a topic, existing as conversation, discourse, images, sensations or smells.
Q sort items	Statements or images etc. drawn from the concourse and put onto cards for sorting.
Q sorting	The process of rank ordering the Q sort items according to an individual's preferences.
Q sort pack	The total set of Q sort items, the grid and sorting instruction involved in a study. Those used here comprise 60 statement items. This is the sample in Q. Studies.
Q sort grid	A diagram that follows a quasi normal distribution with a rating scale such as -5, -4, -3, -2, -1, 0, +1, +2, +3, +4, +5 used to place items relative to each other according to the participant's agreement with the item (or other instruction).
Q sort	The completed Q sort grid containing all the Q sort items in the Q sort pack arranged according to a participant's subjective opinions.
Participants, the P set	People sharing a connection to the topic of the concourse who Q sort the items. They are the variables rather than the sample. Here all are Chinese medicine practitioners.
Q sort booklet	A booklet in which participants can add comments on individual items and the process of Q sorting which aids in analysis.
Factor analysis	A method for classifying variables. A statistical procedure that finds simple structure in complex data.

Correlation matrix	A square matrix comprising each Q sort correlated with each other on which factor analysis relies.
Factors	Inter-subjectively shared opinions on the topic, the data that is interpreted.
Exemplar	A participant who significantly loads on (contributes to) a single factor in a Q study.

Section One: Laying the Foundations

Introduction

The Topic

This thesis is an exploration of the multiplicity of Chinese medicine practices through looking at what is considered valid knowledge in Chinese medicine practice and how practitioners negotiate paths through this complexity. The starting point to achieve this is asking practitioners how biomedicine influences their Chinese medicine practice. This question serves as a tool rather than an end in itself, though it also places the research in the context of biomedicine's hegemony over Chinese medicine.

The main aims are, firstly, to map out the diversity, manifesting as a variety of Chinese medicine practices and secondly, to ask how practitioners access the knowledge of differing practices. The explanatory value and validity of two theories of knowledge in Chinese medicine is considered in this process.

Of interest therefore is what Chinese medicines are available to practitioners; why these exist and not other variations; what is shaping each and if and how these interconnect. This epistemological exploration assumes that practice actively shapes knowledge and vice versa. Hence there is a presumed epistemological and ontological intermingling at play, such that it is impossible to conceive of the one without the other.

Thesis structure

This thesis is structured in three parts. Section One, following this Introduction, consists of two further chapters. The introduction provides the thesis layout, introduces stylistic choices and provides definitions. Chapter One elucidates the assumptions from which I proceed, reviews the literature on diversity and introduces two theories of knowledge pertaining to Chinese medicine practice.

Chapter Two considers the epistemological assumptions behind a dominant view, held by the majority of practitioners, illustrating the need to seek out other minority views in order to achieve the aims of this research.

Section Two provides two chapters. The first, Chapter Three, introduces the methodology and debates surrounding it, through which I clarify my position in these debates. The second, Chapter Four, provides details of the methodological steps taken in generating the data.

Section Three comprises three chapters; the first, Chapter Five, is primarily a descriptive analysis of the data; the second, Chapter Six, places the data in the wider context discussing its relevance to various fields whilst answering the initial questions posed. This is followed by finally a reflective conclusion. An outline of each chapter is detailed below.

Terminology and Stylistic Choices

This research straddles many disciplines. It was started in the School of Integrated Health which merged with the School of Biosciences at the University of Westminster and thus was finished in the new School of Life Sciences. Fieldwork was carried out in China and the United Kingdom (UK). In Beijing I was based at the China Academy of Chinese Medical Sciences (CACMS) *Zhongguo zhongyi kexue yuan* 中国中医科学院. However, in China practitioners of Chinese medicine with no connection to that institute also influenced this work. Practitioners in the UK were drawn from colleagues who reflect a variety of clinical experiences and a broad range of institutional and educational backgrounds. The subject is about the practice of Chinese medicine which will appeal to a non-academic audience of practitioners and others interested in understanding Chinese medicine. However, this research considers epistemological questions and is thus informed by the field of philosophy, yet it is clearly not a philosophical

treatise. Furthermore, the method used to generate the data emerged from the field of psychology.

Influential are my supervisors' specialist fields of knowledge. These include psychology, anthropology, history of medicine and the sociology of scientific knowledge. Thus, this research is pulled in several directions in terms of expected stylistic choices. For example, the positivistic influence of the School of Life Sciences would expect the third person to be used throughout; to provide an objective account, whilst medical anthropologists would balk at such a choice, preferring instead a personal narrative. I endeavour for readability and flow throughout and necessarily do not adhere to the rules of any one discipline. I will therefore, no doubt, be exposed through each discipline's own shibboleths, as being from outside it. This is an inevitable consequence of any cross disciplinary project.

Where Chinese language is used, first pinyin (the Romanised system of writing Chinese adopted by the mainland Chinese communist government) is given in italics. This is followed, at least for the first use of the term, by Chinese characters, using the simplified form also adopted by the mainland Chinese communist government.[1] Such a choice always carries with it a political statement. This choice is made in recognition of the support I received from the CACMS who invited me to use their resources in 'the spirit of friendship without monetary gain,' for which they are duly recognised and to whom I am indebted.

1 For those not familiar with the Chinese language there are two sets of scripts used. One set is called the simplified system, *jianti* 健体 the other the complex system, *fanti* 繁体. The former was introduced by the communist government in China ostensibly to increase literacy levels as it reduced the number of pen strokes needed to write many characters, with a character usually being paired with another to form a word in modern Chinese. Though in so doing some meaning is lost or changed, just as with the American spelling of English that loses the Greek or Latin origin of the word. Inevitably there are many political motives and cultural implications of such a change.

I considered making certain terms exempt from these rules; namely any term originating from the Chinese language which has made its way into the Oxford English dictionary. However, since the definitions given in that dictionary at times distort the meaning encompassed by the Chinese term, I chose not to make such terms exempt. These terms, whilst distinct in remaining untranslated, retain their italic presentation to emphasise their Chinese origin. One example is *qi* 气 which is defined in the Oxford English dictionary as 'The physical life-force postulated by certain Chinese philosophers; the material principle.' However, I would argue that it is not limited to the material principle and view this as imposing a Western materialistic understanding of the world onto a Chinese concept. Such translations can thereby lead to amplifying misunderstandings. As an example, in popular culture in the United Kingdom *qi* is commonly taken to mean energy; yet this translation leaves sinologists despairing as they claim that it does not capture the Chinese meaning at all. The exception to these rules is with proper nouns such as Beijing that are not italicised. These are also immediately recognised by their capitalisation, suggesting that they have meaning internationally since there are no capitals in the Chinese language.

Defining Chinese Medicine – a Starting Point

For the purpose of this thesis, Chinese medicine can be initially defined as, a medicine characterised by diversity, the foundation of which is personal experience arising through study and clinical practice (Scheid, 1998). It has been informed by canonical texts throughout the last two thousand years and possesses theoretical knowledge, has a history of transformations, is permeable to change and primarily uses the modalities of herbs - *yao* 药 [2], acupuncture and moxibustion - *zhenjiu* 针灸, exercise - *qigong* 气功, massage - *tuina* 推拿 and dietary advice. However, bearing in mind that this thesis is exploring many Chinese medicines such a definition is necessarily simply a launch pad from which to consider what these comprise.

2 The concept of 'herb' in Chinese medicine includes minerals and animals as well as plants.

The term ‘Chinese medicine’ is purposefully used throughout this thesis distinguishing it from what is called Traditional Chinese Medicine (TCM), which refers to a specific type of Chinese medicine, as Taylor (2005) explains:

> ‘If TCM is to be regarded as a sub-category of *zhongyi* (Chinese medicine), it follows that it is not the only form of Chinese medicine being practised in China.’ (p86).[3] (Bracketed translation added.)

Therefore, where Chinese medicine is used here it encompasses TCM as well as other ‘styles of practice’. However, rather than use the term ‘styles of practice’ I choose other ‘Chinese medicines’. This latter term is preferred as it points to the multiplicity of practices that may not overlap other than in name, whereas ‘styles of practice’ implies variations of a single common practice, with essential elements at its core. In moving away from such an essentialist stance, the constructionist basis of this research is thus introduced and will figure throughout this thesis.

Section One

Chapter One: Outline

In the first chapter the rationale for focusing on the question of how biomedicine influences Chinese medicine practice, as a route to achieve the goal of mapping out diversity, is discussed. Examining the context of how this focus arose explains why it is both relevant and valid. Then I justify the need for mapping out diversity of practice through reviewing the preceding literature on the diversity of Chinese medicine. That literature largely argues

3 Taylor details how this term was exclusively used in English language literature, in Chinese language literature the term remained Chinese medicine 中医 *zhongyi* and traditional Chinese medicine 传统中医 *chuantong zhongyi* never appeared. TAYLOR, K. (2004). "Divergent Interests and Cultivated Misunderstandings: The Influence of the West on Modern Chinese Medicine." Social History of Medicine 17(1): 93-111.

for the existence of diversity. Whilst this is a necessary argument, since medical systems are repeatedly presented as monolithic, it has now been achieved. Therefore, the opportunity arises for this thesis to add to the literature by describing the range of diversity. Furthermore, theories on knowledge in Chinese medicine are explored to ask how diversity of epistemological assumptions gives rise to many Chinese medicines. Finally, subjectivity as a valid focus is rationalised. I will clarify my use of the term 'subjectivity' and indicate how this led to the choice of methodology. Note that the method itself is the focus of Section Two.

Chapter Two: Outline

Early on in this research process it became evident that there was a dominant view, held by the majority of practitioners that I spoke to, regarding the influence of biomedicine on Chinese medicine practice. It was one tacitly accepting both biomedicine's allegiance with science as well as assuming the need for Chinese medicine to adhere to such standards. In Chapter Two I seek to consider the impact of such an epistemological stance by looking at two Chinese medicine research papers in detail. First, I show how the object of study becomes changed through the act of research and ask is this a loss or a gain for Chinese medicine? Second, I illustrate why Chinese medicine is particularly prone to the use of scientific rhetoric, rendering it liable to being viewed as pseudoscientific by those unable to see their own scientific rhetorical ploys. Finally, the chapter concludes that in order to explore the multiplicity of Chinese medicine it is clear that there is the need to go beyond the dominant views found in these papers, to hear the silenced voices of the minority of practitioners holding different stances. This leads to the section that follows which describes how this is achieved through employing a lesser known method; Q methodology.

Section Two

This section also comprises two chapters. These can be read as a standalone section for those wishing to understand Q methodology. Whilst the details pertain to Chinese medicine as well as the questions I am specifically interested in here, the arguments surrounding Q methodology and the steps taken to complete this method apply to any Q methodology study.

Chapter Three: Outline

This chapter provides a literature review of the methodology employed; Q methodology. This serves to clarify how and why I appropriate this both as a tool and a framework. As Q methodology has been widely misunderstood since it was introduced in the 1930's and used according to quite different frameworks thereon, it is important to enter that debate and position myself within it. It also provides an introduction to necessary terminology, specific to the method that allow for the following chapter to be understood, particularly for those not previously familiar with this method. In addition, a theoretical tool from outside the sphere of the Q methodology literature is introduced. It is applied for the first time in a Q study to aid in data analysis in this thesis.

Chapter Four: Outline

This chapter provides a step by step explanation of how the method was carried out. This includes details of ways in which I have uniquely adapted Q method to fit the particular demands of carrying out research in a second language and culture; Mandarin Chinese in China. It documents some interesting ethical issues that arose when undertaking this research. These are discussed further in Chapter Seven which offers reflections and conclusions.

Section Three

The final section consists of three chapters. The first is primarily of a descriptive order providing the results of the study. The data illustrates theories of knowledge production, previously introduced and the different practices thus arising. The second is a discussion. It relates the findings to previous literature discussed. I consider how the knowledge, of each Chinese medicine described, connects or excludes that of other Chinese medicines and consider how and if practitioners can move between these Chinese medicines. In the final chapter I seek to add a degree of reflexivity to the findings and suggest future directions for research.

Chapter Five: Outline

The results are presented first as a description of the range of diversity of Chinese medicines found in the data. I seek to consider each Chinese medicine in terms of both what it is present in it, as well as what is absent from it. I relate the findings to theories of how we know found in the Chinese medicine literature, introduced previously in Chapter One. Each distinct Chinese medicine found is illustrated with participants' own narratives and these are compared and contrasted with each other.

Chapter Six: Outline

This chapter discusses the research data taking into account the differing epistemological viewpoints revealed and the inequalities in power between the diverse viewpoints. It seeks to answer the original questions posed; such as, how do practitioners negotiate the complexity of knowledge in practice. Are these Chinese medicines described mutually exclusive? Can the knowledge of one be added onto another and what is lost or gained in this process? Furthermore, it offers a theory of how this is achieved and highlights the benefit for Chinese medicine of working together whilst maintaining lack of consensus.

Chapter Seven: Outline

Finally, the concluding chapter reflects on the research process and considers the relevance of the findings for the practice of Chinese medicine, as well as on the fields of research and education. The limitations of this research along with avenues for future research are discussed.

Chapter One: Chinese Medicine, Biomedicine and Diversity

In this chapter I set out the basic framework for understanding diversity of Chinese medicine practice. There are three main underlying assumptions. First, the view that medicine falls within the realms of the human sciences. Second, that both biomedicine and Chinese medicine consists of multiple practices. Third, the tenet that biomedicine will inevitably bear some influence on contemporary Chinese medicine practice. Each of these is expanded on below.

1.1 Subjectivity

Considering that medicine is practiced by people on people, the human element can clearly never be separated out as irrelevant, even if the current turn to evidence based medicine implies that this is the ideal. Given this assumption, naturally practitioner's subjective views are of interest and a valid research focus; medical practice is dependent on individuals' interpretations and experiences and is thus subjective[4].

Ethnographical studies have highlighted the importance placed in experience in the practice of Chinese medicine, as expounded by the following quote:

> 'The things doctors must know are closely related to their opportunity and capacity to cultivate themselves as they become experienced.' (Farquhar,1994, p227).

This is further illustrated by the practise of old doctors - *lao zhongyi* 老中医 being highly venerated and sought out, who continue in clinical practice into

4 I acknowledge that such assumptions could be challenged, particularly through the cyborg literature and through investigating the role of machines and technology in medicine. However, I feel that this is itself an interesting PhD topic and thus beyond the scope of this research.

their old age.[5] Therefore, subjective opinions as a focus will reveal the array of the documented heterogeneity and plurality of Chinese medicine today. Whilst recognising that, at the same time, what counts as knowledge will be socially sanctioned narratives.

This research gathers individuals' subjective opinions; nevertheless its aims lie beyond these. It is not interested in who said what, but rather what is being said about the topic. For subjectivity is seen to be forged in the socio-cultural milieu; hence it is more correctly termed inter-subjectivity. What is of interest is how inter-subjective opinions group. For inter-subjectivity is both the product and source of knowledge and power. It is therefore shared inter-subjectivity arising not in an individual's mind that is sought. Nevertheless, to access these, individual practitioner's perspectives are the starting point. An individual practitioner is a manifestation of their phenomenological experiences, as well as the relationships between nature, society and culture and social and political controls. However:

> 'People wishing to publically formulate their 'inner'experience will be able to do so only by drawing upon the stock of linguistic resources available in contemporary culture'. (Potter et al., 1984, p140).

What subjectivity/inter-subjectivity means for this research draws on Stephenson's (1953a) understanding of the term. Far from being some inner, hidden cognitive concept, subjectivity is behaviour, a person impacting with the world. This is discussed in greater detail in Section Two.

5 The oldest of which I came across in Beijing was ninety three year old Dr Xie 谢大夫.

1.2 Multiplicity

The second basic tenet of this thesis, that all systems of medicine exist in multiplicity, has been well documented through ethnographic accounts, not only for Chinese medicine (Hsu, 1999; Scheid, 2002a) but also for biomedicine (Mol, 2002). These have shown that both systems of medicine take on different forms with various diagnostic and therapeutic practices. Such variations reflect the values and beliefs of the local culture and thus consist of an array of dynamic and emergent practices (ibid). Therefore, the myth of medical practice as on a progressive journey of improvement, unceasingly connected to what went before in a linear fashion has been largely discredited by anthropology. Nevertheless, such a story is one adopted by science, though even in that sphere the idea of an evolutionary development has been challenged.[6] Hence, in this work, diversity does not need to be shown; it can be taken as given. I plan instead to build on the foundations of those previous works and undertake a journey to explore such multiplicity.

It is proposed that diversity is intrinsic to the continuing, creative re-emergence of any system, including medical systems. Therefore, diversity itself is worthy of interest as through it, adaptability, presentation and re-emergence of any system is ensured and therefore that system's survival is ensured. This idea is widely accepted with regard to ecosystems where the term bio-diversity is synonymous with survival. Thus, for biological systems this is widely acknowledged as a necessary state. Yet, interestingly, there is a growing trend demanding uniformity for other systems. This is particularly evident within the fields of education and medicine where standardisation and duplication are seen as vital. Notably, within the British National Health Service (NHS), there is the view that what is considered good practice should be copied throughout; a trend in the opposite direction from that valued in biological systems. Through standardisation diversity is purposefully minimised. Whilst the NHS provides a clear example of the

6 See, for example, KUHN, T. S. (1970). The structure of scientific revolutions, 2nd edition. University of Chicago Press, Chicago, IL.

assumption that best medical practice is uniform. Nevertheless, it is not alone; this view is being adopted now by the Chinese medicine profession in the UK as well as in China and throughout the world.

Diversity of practices reflects and reinforces dominant social and cultural processes in which they are situated but not necessarily bound by. That is, multiplicity exists trans-culturally as well as locally. Kuhn (1962) would describe Chinese medicine and biomedicine as belonging to different paradigms which are incommensurable. His theory is celebrated for questioning the supremacy of science and thus allowing indigenous medical systems to be legitimised in their own right. However, it is also criticised as it supposes fixed and un-crossable borders between paradigms. When considering Chinese medicine and biomedicine from this perspective they are in danger of being seen as a simple dichotomy. Whereas a quick tour of a few clinics, anywhere in the world will highlight the heterogeneity of practices calling on differing traditions, using differing tools even when residing under similar labels. As a case study has shown (Scheid, 2001), in practice there are ambiguities that obscure the division between each system's knowledge. This applies to biomedicine as well as Chinese medicine, even though biomedicine hides under a stronger veil of uniformity.[7] The use of antibiotics provides an example of the superficiality of this veil. In China it is the current trend at the first sign of a common cold to receive intravenous antibiotics, usually involving several repeated doses within a hospital setting over several days, whereas such a practice is an unlikely scenario in the UK. Similarly, in the UK, antibiotics administered as a single mega-dose is unusual, whereas this is accepted practice in other parts of Europe.

7 See for example MOL, A. 2002, The Body Multiple: Ontology in Medical Practice Duke University Press.

1.3 Juxtapositioning Chinese medicine with Biomedicine

To explore diversity there are many possible starting points and a broad range of approaches that could be used to elicit that multiplicity. The direction taken here is to ask Chinese medicine practitioners how biomedicine influences their practice. Through this question several avenues and related topics are opened up. These include; the historical inevitability of the meeting of biomedicine and Chinese medicine; the hegemony of biomedicine today; the role of rhetoric in science and consideration of how epistemology shapes practice. In exploring diversity it is specifically Chinese medicine's emergent properties, its changing faces that I am interested in and how these vary according to one's knowledge base as well as context. This leads to several working definitions of Chinese medicine, or what can be termed multiple Chinese medicines, albeit each providing only a snapshot in time. Such definitions conceivably hold value for the fields of Chinese medicine education and research as well as being of interest to reflective practitioners.

Furthermore, the rational for asking this particular question will become evident from the context in which it arose. This is outlined below. Multiplicity of practices inevitably renders even an apparently simple question, such as the one posed, into increasingly multifaceted answers. Through this research each variant of Chinese medicine will be placed in its philosophical and socio-cultural context; linking the micro level of the individual practitioners and the broader macro level in which they practice and by which they are shaped.

1.4 Reflective Clinical Practice and this Research

In this research, my background as a practitioner researcher provides the opportunity to consider questions arising directly from my practice of Chinese medicine. No doubt such questions are not exclusive to me and I hope that

this exploration will therefore have relevance to my fellow practitioners as well as researchers.

Prior to undertaking this research, I was working in a NHS hospital HIV[8] outpatient clinic, though sometimes also called upon to treat inpatients. There, biomedical knowledge was naturally all around. As well as clinic rooms, the waiting room and corridors were adorned with posters and leaflets explaining tests, diseases and treatments. The daily clinical routine was to collect the biomedical case notes from reception for each patient booked in. These were then carried to the clinic room where I would read through them, checking any entries since I last looked at them. Doctors, nurses, physiotherapists, psychiatrists as well as my self all wrote in the same set of notes. That is, anyone within the hospital trust that saw a person as an HIV patient used this set of notes.[9] Whilst I wrote in these notes I also kept independent Chinese medicine case notes. These would contain information relevant to me as a Chinese medicine practitioner that other medical staff did not require; information such as Chinese medicine pulse and tongue diagnoses. The purpose of myself as an acupuncturist writing in the biomedical case notes was more to do with clinical governance than any interest in that information for clinical decision making by biomedical staff. Through listing the acupuncture points used, my treatment of the patient was transparent. Thus, in the event of an adverse event; for example, if a patient suffered a pneumothorax on the day of acupuncture treatment, the site of the points used would implicate or exclude acupuncture as a cause. In contrast, I found that the biomedical information had relevance to my practice; it was in a language that I was conversant in. However, the meaning of that information was not necessarily fixed, as I will illustrate below.

8 HIV is the acronym for human immunodeficiency virus. However, as the acronym will be more familiar to most readers than the full term I have broken convention and used the acronym alone, as I also do for AIDS below standing for acquired immunodeficiency syndrome.

9 Often the patient would also have a non HIV associated set of notes used for any medical encounter where their HIV status was undisclosed, reflecting the enduring taboo of this diagnosis in the UK at that time (2005).

At first glance this situation appears to be the integration of Chinese medicine and biomedicine, with both being carried out at the same site, with an at least partial sharing of information. There were often discussions about mutual patients with doctors. These were largely, from the point of view of the doctors, to glean any additional lifestyle information that may explain a missing part of the puzzle to understand the course of a patient's disease. Doctors were aware of and interested in the fact that patients chose to see an acupuncturist. They realised that patients communicated in clinic, in a different way towards them as biomedical doctors, from the way they communicated with me as their acupuncturist. In this sense I could potentially offer clinically relevant insights. For example, a patient may be more forthcoming with me in admitting that they often forgot to take their drugs at the correct time than with a doctor, or that they had enrolled on a drug trial to make money without revealing their HIV status. Such information could prove pivotal in understanding strange or unexpected results for doctors. However, these discussions with the biomedical doctors never involved my Chinese medicine diagnosis. Thus, this apparent integration was not mutual; it involved a flow of knowledge consistently couched in biomedical language, a point I return to later.

I considered; how relevant to my practice was that biomedical information; do these practices actually exist independently? I ultimately found myself pondering on what is distinct about the practice of medicine that we call Chinese medicine. These reflections led to this journey considering the basic epistemological question of what is valid knowledge in Chinese medicine practice. More accurately stated as, what is valid knowledge in multiple Chinese medicine practices. Which naturally leads on to ask how do we practitioners negotiate the complexity of these co-existing 'knowledges' in our practices? Such philosophical questions have many answers. I will show how these provide an interesting insight into the diversity found in contemporary Chinese medicine practice. Thus, this philosophical flight is taken back to the clinical practice from which it started.

1.5 The Agency of a CD4 Count

The account of my practice below, illustrates the active influence on practice that can be ascribed to a cell glycoprotein (see footnote 10); clinical actions are thus not solely the domain of human activities but practices arise through the constant interaction of materials, machines and concepts.

As patients entered the HIV outpatient clinic reception they were logged onto the computer system. The desktop screen on my desk would then display their biomedical test results. These could be in various forms, including, for example, graphs of changes in test results over time. Key tests routinely undertaken in such a clinic include CD4 counts and viral load tests,[10] which are considered markers of disease progression in biomedicine. The CD4 count however, is not only seen as an indicator of disease progression, it also defines a diagnosis of AIDS; when the CD4 count falls below two hundred one is no longer labelled as suffering from HIV infection but as having AIDS.[11] Since such a diagnosis carries with it a large number of implications, such as treatment options and the reconstruction of identity for the patient, both as an individual and as part of society, a CD4 count has meaning beyond the immediate sphere of simply being an immune system cell. Clearly here diagnosis plays a role in locating the parameters of normality and abnormality (Brown, 1990), which in this case also carries various socio-cultural taboos, whether an HIV or an AIDS diagnosis. The point immediately following a diagnosis that has shifted from HIV to AIDS will usually involve a rapid reconstruction of one's self identity. Where a disease, as with HIV / AIDS, is considered more of a public health risk than in the domain of an individual, one's identity is particularly challenged. Under British law, for example, a diagnosis of HIV may instantly place a person in the category of a criminal due to the introduction of the law categorising as criminal the 'reckless' transmission of HIV during consensual sex. When self-

10 CD4 is a glycoprotein receptor found on the surface of T helper cells, which are a type of white blood cell called lymphocytes and are an important part of the immune system. In HIV infection their numbers can reduce so are used as a marker of disease progression. Viral load is a measure of the severity of viral infection. In HIV infection a high viral load count increases the risk of suffering from opportunistic infections.

11 It should be noted that this is not the only criteria by which an AIDS diagnosis can be made.

construction is seen as an ongoing process, Green and Sobo (2000) suggest that:

> ‘A positive HIV diagnosis has the potential to shatter one's previously crafted sense of self because of the cultural connotations of AIDS and the practical consequences of being HIV positive.’ (p192).

Hence an HIV diagnosis itself carries an immediate impact; for example, Chris Smith, former Member of Parliament, described his diagnosis in the 1980’s as a hammer blow (Flynn, 2005). There are also additional cultural taboos associated with a diagnosis of AIDS.

In clinic I routinely asked each patient about their CD4 count. I reflected on why was I, as a Chinese medicine practitioner, asking about CD4 counts? Particularly considering that I already had that figure on the computer screen in front of me. When I asked patients what their CD4 count was, responses varied enormously. They included those not wanting to know, believing ignorance is bliss. Others monitored every change fretting if the count was a single point down. This is regardless of the fact that the accuracy of the count is often questioned by doctors. When tests revealed surprising results doctors often presumed them to be wrong and discarded or re-ran them. The unreliability of the tests was openly acknowledged, despite them carrying so much clinical weight. Other patients down to their final few CD4 cells humorously named them, stating that they had Fred, Beryl, Cuthbert and Gladys left. In light of this a CD4 count was to me a marker of a person’s identity, indicating their relationship to their HIV status and provided a window into their social world. Asking about the count therefore revealed insightful information on how a person related to their disease. The CD4 test ceased being a predictor of disease progress, but revealed instead a wealth of relevant information that contributed to a Chinese medicine diagnosis. Hence my interest in asking for a CD4 count lay in an entirely different arena

to that of a biomedical doctor[12] viewing the quantitative answer as a standalone fact. It provided a means to view the wider world encompassing emotions, viewpoints, as well as a person's social networks that impact on health. Whilst not denying that a CD4 count represents a materiality, its function is restricted when viewed as an objective fact neglecting that broader meaning. Not least since anomalies in a CD4 count as an indicator of disease progression are known to exist. For example, some people having been known to have very low counts for extended periods of time but nevertheless do not succumb to opportunistic infections. Doctors, at Saint (St.) Mary's National Health Service (NHS) Trust, where I was based, spoke to me of early unpublished research carried out at Chelsea and Westminster hospital in London, looking at what were considered, at the time (1995), long term survivors with HIV infection. It found that a strong correlation existed between a person's attitude to their disease and survival. Those HIV patients whose life revolved around the illness, with every cough or ache attributed to the disease, were less likely to become long term survivors. In contrast, those who felt able to get on with their lives, maintaining a focus on work or other commitments were more likely to survive.

Such research contrasts with an essentialist view, where long term survival with HIV would be solely attributed to factors such as genetic variations (Zimmer, 2001). In such a positivist world the social is removed, or rather ignored as irrelevant. By focusing just on the count a range of information is therefore lost, information that may have important influences on a person's health. Therefore, what one knows from a CD4 count (or any other diagnostic sign) will always depend on what it is taken to represent.

What then is a CD4 count? Has it anything to do with glycoproteins on cell surfaces or is it to do with the person's relationship with their disease? Really

12 I am not suggesting here that myself as a Chinese medicine practitioner had privileged access to such a view, there were many biomedical doctors who would use such information in a similar way. It is more to do with ones approach to medicine and the patient than allegiance to a particular system of medicine.

this is not an ‘either or’ question, it is an ‘as well as’ situation; a CD4 count is more than one thing. The two aspects, social and biological, are clearly intertwined. Hence, a CD4 count carries many meanings, on many levels; different for the patient, the doctor, for society and dependent on the context of that knowledge, relative to each of these.

This necessarily renders medical knowledge complex. Looking at how practitioners validate and negotiate such complexity provides an interesting starting point to explore the diversity of Chinese medicine. How a word representing a ‘fact’ has many meanings dependant on the use to which it is put, will also be revisited in Section Three during the analysis of the research data, where each statement on the topic under consideration carries an abundance of meanings signifying an array of ‘facts’; illustrating this same point again.

1.6 The Illusion of Dichotomies

Whilst this research considers how biomedicine influences Chinese medicine practise, the aim is not to contrast Chinese medicine with biomedicine. Neither biomedicine nor Chinese medicine is viewed as a single homogenous global entity. Therefore, simply setting up biomedicine versus Chinese medicine would be disingenuous to the complexity contained in the question, not least for the reasons given above, but also since it is accepted that boundaries between systems are fluid and permeable (Kim, 2006; Scheid, 2002a; Scheid, 2008a). Authors repeatedly remind us that neither tradition can be reduced to a single viewpoint (Ernst, 2007; Kuriyama, 1999). Indeed, such an approach would amount to adorning of a ‘conceptual straightjacket of east / west dualities.’ (Ernst, 2007, p521).

Nevertheless, such a dichotomous view holds fast in much of the discourse surrounding contemporary Chinese medicine, by both its proponents and opponents. For example, from the perspective of proponents of Chinese

medicine, particularly in the West, there is a dividing of medical domains predominantly drawing on a discourse of 'safe and natural.' Such claims swamp clinic brochures, websites and are often heard in the language of patients. Biomedicine is associated with the implied opposite, as dangerous with unwanted side effects. However, the merest scratch behind the surface of such statements renders them untrue; mercury and ricin[13] being pertinent examples. Nevertheless, such rhetoric steadfastly persists.

Similarly, commonly repeated in China, is the phrase: 'Biomedicine treats acute conditions Chinese medicine treats chronic conditions - *xiyi zhiliao jixing bing zhongyi zhiliao manxing bing* 西医治疗急性病中医治疗慢性病'. In fact there is an abundance of such commonly used phrases, each dividing the world into neat chunks that seamlessly adjoin to form a whole. Another being, 'Chinese medicine treats functional diseases, biomedicine treats organic diseases - *zhongyi zhiliao gongneng xing jibing xiyi zhiliao qizhi xingjibing* 中医治疗功能性疾病，西医治疗器质性疾病. ' Such phrases reflect the Chinese government's official support for both systems of medicine, where they are both given a place within institutional settings of universities, hospitals and publishing houses. However, it should be noted that this is on a far from equal footing. Whilst in China, to publicly denigrate Chinese medicine's worth could be construed as a challenge to the communist government's policy of supporting Chinese medicine. Nevertheless, this does happen, as outlined below.

Following the establishment of the People's Republic of China (PRC) in 1949, the Chinese Communist Party's (CCP) support for Chinese medicine represented a complex mixture of maintaining 'Chineseness' in the face of modernisation.[14] Chairman Mao Zedong 毛泽东, in a speech in 1956, called

13 Ricin is obtained from the seeds of the castor oil plant and was famously used in what is referred to as the umbrella murder of Markov, a Bulgarian defector in London in 1978. The ricin containing pellet injected into his leg was only millimetres wide yet killed him within three days.

14 See Chapter Two for more details of this period.

for ‘the dialectical merging of the best from both Western and Chinese civilizations.’ (Karchmer, 2005, p61). He was no doubt also influenced by personal experiences; Mao had a serious eye condition that had not responded to any biomedical treatments and which was finally cured with Chinese medicine. However, many of the influential figures in the government did not wholeheartedly support Chinese medicine; a situation that has never gone away.

Looking at these medical systems from the perspective of biomedicine’s proponents provides an entirely different discourse, but one that nevertheless rests again on seeing a dichotomy. In recent years Chinese medicine in the UK, clumped together with all non-biomedical medical systems, has received a barrage of ceaseless attacks in the media for being ‘unscientific.’ (Peterkin, 2008). Particularly vociferous is a professor and former chair of pharmacology at University College London (UCL), via a blog (Colquhoun, 2010). The rhetoric in this blog hinges on presenting Chinese medicine as; based on lies; being environmentally damaging; practitioners having ‘mumbo jumbo’ pseudoscientific training and actively tricking patients to part with their money. This type of discourse thereby, not only attacks the knowledge base but also brings the ethical integrity of such practitioners into doubt. Furthermore, such attacks are made highly personal by picking on the work of individuals. Moreover, when the National Institute of Clinical Excellence (NICE), a highly respected body within the scientific establishment, who assess evidence for medical treatments and which make recommendations based on these, actually recommend acupuncture, this is dismissed conveniently as bad science by such bloggers. Despite the obvious bias and circularity of such arguments, they nevertheless bear influence through the author’s scientific standing. This is just one example from a broad field voicing similar attacks in the UK.

Following the same vein, Chinese academics have made similar attacks against Chinese medicine. On October 7th , 2006, whilst I was in China doing

fieldwork , Professor Zhang Gongyao 张功耀 (2006) launched an internet campaign inviting signatories to his proposal calling for the government to stop funding Chinese medicine and withdraw it from the country's health system. It used the same type of rhetoric as that used by scientists in the UK; calling it farcical medicine, with backward thinking. This campaign continued a history of such attacks that go back to the beginning of the twentieth century. An historical summary of these is given in the following chapter.[15]

Doctors at the CACMS were unwilling to speak about this with me, preferring to perpetuate, particularly to foreigners, the popular image of a flourishing state sponsored Chinese medicine. They were clearly embarrassed that I knew of this campaign. Furthermore, this was not an isolated incident in portraying Chinese medicine positively; in discussions with Chinese doctors during fieldwork, it was characteristic that nothing negative would be said of Chinese medicine. During that fieldwork when relying on a translator, (but when my comprehension of Chinese had improved enough to understand a lot more of what was being said), I often heard such phrases as, don't tell her anything negative - *buyao gaosu ta buhao de shi* 不要告诉她不好的事, or simply, this is secret I cannot discuss it with foreigners - *zhe shi mimi, buneng gen waiguoren shuo*, 这是秘密不能跟外国人说. It thus appeared that it was extremely important for only positive supportive statements to be uttered.

The examples given above illustrate that research can never be seen as either naturalistic or objective; instead it can be seen as 'a culture of dealing.' (Holliday, 2002, p148). The Chinese medicine that was depicted to me as a

15 For a detailed account of the historical circumstances when the word science - *kexue* 科学 was first introduced into China from a Japanese word see ROGASKI, R. 2004, Hygienic Modernity Meanings of Health and Disease in Treaty-Port China University of California Press, Berkeley Los Angeles London. Also, for the role played by early 20th century Chinese intellectuals trained in biomedicine – along with missionaries, in promoting public health as part of modernisation, linking biomedicine with science and attacking Chinese medicine as superstitious and non scientific see - BU, L. p 2009, "Social Darwinism, Public Health and Modernization in China, 1895-1925," in Uneasy Encounters: The Politics of Medicine and Health in China 1900-1937, I. BOROWY, ed., Peter Lang, Frankfurt am Main, pp. 93-124.

student researcher from England, was tailored to those particular circumstances and was itself a social process. When speaking to me the Chinese doctors were not in a position to voice criticisms of their medicine. The reality that Chinese medicine's acceptance and status in China is on shaky grounds is not well publicised in the West. In these circumstances criticism of Chinese medicine was actively suppressed. It can be said that Westerners may well do their own suppressing; for example, Chinese medicine in the West has been described as based on a romantic vision of the East (Unschuld, 1987). As the Communist party has supported the development of Chinese medicine since it came into power, to now stop that support would be to admit a failure of government policy. Nevertheless, it appears that, at the inception of communist rule in china, the modernisation campaign served to promote Chinese medicine, whereas contemporary modernisers are now the source of campaigns against Chinese medicine (Karchmer, 2005).

Whichever stance one takes in these debates, they all rest on perpetuating the myth of discrete systems, neatly bound, as summarised in the table below.

Table 1: Summary of Dichotomies

By whom	Rhetoric used		Result
Chinese medicine proponents	Chinese medicine is safe and natural	Biomedicine has toxic side effects	One approach is better than the other
	Chinese medicine treats chronic diseases	Biomedicine treats acute diseases	Together the whole truth is known

	Chinese medicine treats functional diseases	Biomedicine treats organic diseases	
Biomedicine proponents	Chinese medicine is pseudo-scientific, unethical	Biomedicine is proven effective based on facts	Biomedicine is the only valid view of the world, all other are wrong
	Chinese medicine is backward, superstition	Biomedicine is scientific, modern	

1.7 Beyond Duality; Alternative Frameworks in the Chinese Medical Literature

In the modern age dualisms abound with separation of human from non-human, mind from body, theory from practice, the social from material and so on. While such an approach may have value, it stumbles when taken as the only valid reflection of the world and is specifically, that which I aim to go beyond, in this thesis when mapping out Chinese medicine's diversity. Dualism, as seen in the table above, often operates in a righteous way, trivialising and condemning the other approach. The view, underlying this research, that medical systems are open and changeable comprising systems of knowledge enacted in a variety of settings (social, historical, cultural and physical) using a variety of technologies is thus incompatible with such a narrow framework of duality.

1.7(i) Mangling

Other frameworks have been used in the literature to illustrate the plurality of Chinese medicine each having in common the aim of shattering the illusion of Chinese medicine as a fixed entity. Pickering's 'Mangle of Practice'

(1993)[16] has been employed by several authors in the field (Kim, 2006; Scheid, 2002a; Scheid, 2008b). Pickering's (1993) theory proposes that the agency of machines as well as humans constantly interact, accommodating and resisting in a 'dance of agency.' (p21). The theory thus challenges the dualism of humans versus things. Pickering's theory seeks to surmount weaknesses identified in both the natural sciences and social sciences. The former's weakness is tending to refer to a world of things without accounting for people. For example, in the natural sciences the preferred reporting standard is to use 'it was found,' purposively rendering the researcher who found 'it' absent. Whereas in the social sciences and humanities it is a world of people that is of interest with things marginalised, thus a reflexive narrative of the influence of the researcher is integral to good practice, but the agency of objects is often discarded. It is favoured for avoiding what could be viewed as a blind alley of dualism as well as extremes of social constructionism versus realism (Lambert et al., 1997). Nevertheless, the limitations of the mangle as a grand narrative have been pointed out (Scheid, 2008b).[17]

1.7(ii) Synthesis or Incommensurability

A Korean acupuncture study (Cho et al., 1998) has been described (Kim, 2006) as an interesting example of mangling at work. The acupuncture study set out to look at the effects of needling an acupuncture point, bladder 67, *zhiyin* 至阴. This point benefits vision, according to Chinese medicine texts. However, as it is on the foot there is no clear explanation from a biomedical perspective as to why this would be the case. There is no direct neural

16 I question the appropriateness of the choice of verb for its negative overtones; the Oxford English Dictionary defines it thus: 1).To hack, cut, lacerate, or mutilate (a person or animal) by repeated blows; to reduce (a body, limb, etc.) by violence to a more or less unrecognizable condition. Formerly (occais.) with out. 2) To make (words) almost unrecognizable by mispronunciation; to spoil, corrupt, misrepresent, or do violence to (a text or extract, or the meaning or essence of something); to distort (music) in a similar fashion. 3) To cause damage or destruction, to have a mutilating effect. Also fig. Obs. rare. I understand 'mangling' as Pickering uses it to give rise to a changed state that is not necessarily inferior to the ones it is at interplay with. I see it as a far more creative process than the term suggests.

17 Pickering proposed that his theory could be applied to everything. However, it has been pointed out that the theory is not contextless and thus instead orients us to the context from which it arose; which in this case was 1960's counterculture in the US, rather than, as he claims, serving as an explanatory tool for everything. In seeking to explain the process of the emergence of practice it ties itself to that Western, US culture focused on ontolgy and explanation, in contrast the Chinese context of practice focused on process. SCHEID (2008b) illustrates the Chinese view through recounting the myth of the great Yu, who overcame flooding through leading the river via canals to the sea rather than resisting it with dykes.

connection between the point and the eye. However, within Chinese medicine the link is that it is on a meridian that starts at the eye and travels down to the foot. The study results showed that needling this point resulted in the vision area of the brain to become illuminated on Magnetic Resonance Imaging (MRI) scanning. Initially this information was used to support the existence of point specificity. However, subsequent explanation dropped this theory and instead relied on neurological explanation of the phenomenon. Pickering's theory (1993) would describe this as an example of mangling; a harmonious synthesis as well as an infusion of scientific norms. The point being, that what emerges is neither, but a hybrid, which itself is only temporarily stable. However, epistemological questions remain; Kuhn's (1962) incommensurability may actually provide another explanation for this case. Cho, et al.'s work (1998) did not receive a great deal of acclaim within the scientific community. The logic of the experiment, starting with meridian theory, remained unexplainable in scientific terms and therefore was ultimately un-synthesisable. One can question if this illustrates a performative synthesis as Kim (2006) suggests, drawing on Pickering's mangle, or does it rather show incommensurability? It is pertinent to note that Cho (2006) and his co-workers themselves later retracted their article. They re-synthesised their findings, suggesting that their claim of acupuncture point specificity was simply wrong. It seems that Cho and his co-workers could not avoid seeing the central nervous system as the processor of the results. Here then it appears that their epistemological assumptions serve to obscure other explanations. Hence, this appears to be more a case of incommensurability than synthesis. It is interesting to note that the epistemological assumptions of the authors are most definitely foremost, even in framing the question that was of value.

1.7(iii) Hybridities

Stollberg (2006) points out that practices vary and are plural, describing different types of hybrids to explain the plurality - as shown in Table 2 below. Nevertheless, the explanatory model he provides hinges on Chinese medicine and biomedicine being complementary systems. The emphasis

varying in different hybrid forms but which nevertheless, together form a whole.

Table 2: Hybridisation of Biomedicine and Chinese Medicine in Germany

gravitational centre degree of hybridisation	biomedicine	heterodox medicine
weak	complementing biomedical practice with Asian medicine criteria: biomedical disease category; patients demand no further meta-theory	complementing heterodox medical practice with biomedical procedures (at least diagnostics) no further meta-theory
strong	inclusion of Asian medicine in biomedical paradigms use of Asian medicine in predominantly biomedical practice	fusion of all conceptual ingredients in to universal model of medical theory and practice

STOLLBERG, G. 2007. p20. Chinese Medicine and Globalisation. Institut für Weltgesellschaft. *Working Paper*.

The problem with using the term hybrid is that it assumes a former pure non hybrid form, a point acknowledged by Stollberg, (2006) despite his use of the term to describe plurality. It has been suggested that the term is therefore of little value other than in challenging essentialist discourses (Rosaldo, 1995). Going beyond an idealised view of Chinese medicine as a pure form in opposition to an equally pure biomedicine, can be interpreted as a search for hybrid forms, resulting from the inevitable encounter of the two systems. Whilst I suggest that it falters for the reason given above, in so doing it is nevertheless, a search for new understandings of Chinese medicine. The need for which has specifically been called for in the Chinese medicine literature (Karchmer, 2010). Whilst Stollberg (2006; 2007) does seek to go

beyond idealised views of each medical system, he nevertheless does not escape a single epistemological viewpoint of there being one whole to be had. So whilst his classification system gives rise to different forms they all adhere to a single epistemological perspective; the two together form a whole, the differences being in emphasis within that whole.

1.7(iv) The Three P's

Pickering's mangle (1993) gives agency to things as well as people. This interplay is particularly evident in medicine. Hsu (2008) has called this the three Ps; patients, practitioners and paraphernalia. Without explicitly referring to Pickering's (1993) theory, the same realisation is thus shared and part of Hsu's work. The three Ps builds on a concept that was important in her earlier work (Hsu, 1999); that meaning is dependent on context, thus Chinese medicine transmitted in different ways becomes different practices. This is a move beyond seeing varying degrees of hybrids where each mixture is part of a whole. It illustrates the emergence of multiple Chinese medicines. Each Chinese medicine creates meaning as a source of power that is relevant to its particular route of transmission. The particular routes that Hsu (ibid) both partakes in and reports on are, first, as a *qigong* student of a *qigong* master, second, as a student of a senior doctor - *laozhongyi* 老中医 and third, as a student in a state sponsored Chinese medicine college in Yunnan. In the first, healing as performance is emphasised, in the second, practice emerges through a reading of classical texts, such as the Yellow Emperors Inner Classic *Huang di neijing* 黄帝内经, which are filtered through the personality of the teacher. Finally and unsurprisingly, in the state sponsored standardised training, politics and biomedical influences wield great power to form a new Chinese medicine (ibid). Hsu's work highlights the need to purposively sample practitioners to reflect a range of routes of transmission in order to allow for diversity of practises to emerge.

Hsu's third form of Chinese medicine is an example of the legacy of the hugely moulding influence of politics during the emergence of institutionalised Chinese medicine in the early communist era.[18] Whereas Farquhar (1994) suggests, that there is interplay of theory and practice in institutional Chinese medicine, Hsu (1999) views institutionalised Chinese medicine, to be defined by the separation of theory from practice. Research into patient experiences of acupuncture (Paterson & Britten, 2008) again emphasises the interplay of theory and practice. However, that research identified four factors impacting on such experiences; patient intentions; practitioner intentions; context (time, place); and theory (ibid). This emphasises the need to carefully define the precise details when making generalisations about what comprises any medical practice; institutional Chinese medicine itself also consists of divergent practices.

1.7(v) Enduring Rhetoric of Whole Systems

The well known trope mentioned previously; biomedicine treats acute conditions Chinese medicine treats chronic conditions - *xiyi zhiliao jixing bing zhongyi zhiliao manxing bing* 西医治疗急性病中医治疗慢性病, is often accompanied by the opinion; Chinese medicine, it's development has more than two thousand years history - *zhongyi tade fazhan you liangge yiqian duo niande lishi* 中医它的发展有两个一千多年的历史. This latter statement presents Chinese medicine first as one body of knowledge and second as that body of knowledge undergoing an ever refining evolution. In this way contemporary Chinese medicine achieves its aims of appearing to be both modern and traditional. Hence, despite the literature revealing diversity, the rhetoric of whole systems remains. This begs the questions of why is Chinese medicine presented as a whole bounded system and what are the tools used to achieve this? Before answering such questions I first consider the effects of biomedicine's dominance as a medical system on Chinese medicine, in order to illustrate that the two systems do not exist as exclusive

18 For a detailed account of this era see TAYLOR, K. 2005. Chinese Medicine in Early Communist China, 1945-63, New York, Routledge Curzon.

entities. The purpose of obscuring diversity and how this is achieved will then be discussed in the following chapter.

1.8 Pervasiveness of Biomedicine

The hegemony of biomedicine over Chinese medicine is present in China, as in the rest of the world. How these power relations manifest and are subjectively experienced is important for this study. However, it is not individual viewpoints or themes that are the endpoint, but rather how groups of participants interconnect such themes. The literature on Chinese medicine has considered biomedicine's dominance and influence on Chinese medicine from various angles, largely relying on historical and ethnographic methods (Karchmer, 2005; Farquhar, 1994; Andrews, 1996; Scheid, 1998; Croizier, 1965; Hsu, 1999; Taylor, 2005). The extent to which biomedicine's hegemony is explored varies, but it inevitably arises in any account of Chinese medicine practice of the last one hundred and fifty years; the literature indicates that no medical system is hermetically sealed and that there are no distinct borders between practices.

In Farquhar's (1994) experience, contemporary Chinese medicine uses biomedicine test results in such a way that they are subsumed within the four methods, giving privilege to Chinese medicine diagnostic methods. Whilst Scheid (1998) concludes that adaptive strategies, used by Chinese medicine doctors, are evidence of the increasing domination of Chinese medicine by biomedicine reflecting the power of biomedicine in contemporary China. Nevertheless, he suggests that Chinese medicine has also learnt to escape this influence (ibid). Different interpretations of the encounter of Chinese medicine and biomedicine abound. Scheid (2002a) for example, presents a case study of Dr Lin as a harmonious synthesis, which is interpreted as illustrating Pickering's (1993) mangle of practice at work. Whereas Zhang (2003) provides a different reading of this case; he suggests that it indicates that biomedical norms are given centre stage at the expense of Chinese

medicine's etiological principles. Zhang (ibid) views this as an infusion of biomedicine into Chinese medicine rather than an invigoration of Chinese medicine as Scheid (2002a) claims. Or in other words an act of hegemony. Yet can both conclusions exist harmoniously when Pickerings (1993) view is adopted? For in 'mangling' parts can be dropped, suggesting that they can. These observations based on the thick description of ethnography, provide insight into the great diversity found in Chinese medicine practice as well as into the diversity of interpretations of the impact of biomedicine on Chinese medicine.

Karchmer (2010), referring to contemporary institutionalised Chinese medicine in China, presses the point that Chinese medicine cannot be practiced without bearing some influences from biomedicine. Furthermore, he states that contemporary Chinese medicine itself is defined by its relationship to hegemonic biomedicine, whose standards are held up as the scientific truth. This view rests on acknowledging the dominance of biomedicine as a medical ideology,[19] practice and infrastructure that has permeated society. Ideology is used here to mean a series of practises, ideas and beliefs that serve to maintain and defend an existing understanding of power, authority and status in society.

1.8(i) Scientific Biomedicine

Biomedicine exploits its association with science and science's association with truth and facts to wield power over other medical systems. It does so through various institutions including the media, educational, legal and research establishments, who all spread this same message. Such a position is maintained therefore by means of a range of authorities. For example,

19 This understanding is based on Althusser's use of Gramsci's consideration of how ideology becomes disguised as a trick of hegemony. He distinguishes between ideology in general and ideology in particular, the former a common sense framework of understanding and possibilities that determine limits of what can be thought. The particular ideology includes values, traditions, shared understandings of members of a particular social group. The gap between the two allows for agency of the subject. Not as in Marx's idea that it is a false consciousness distinct from scientific reality. See ALTHUSSER, L. ''Ideology and Ideological State Apparatuses'' (from Lenin and Philosophy and Other Essays, London: Monthly Review Press, 1971).

biomedicine's adherence to evidence based medicine, as the basis of validation, allows it to call on this movement to criticise other systems of medicine. At the same time it hides the contradiction that many of its own practices are not evidence based according to its own criteria. As such hegemony can be viewed as immanent in biomedicine; it pertains throughout the system and is not limited to certain 'proven' practices. Thus, biomedicine co-exists alongside all other medical systems as a predominant authority. There is a resultant inevitable asymmetric exchange of knowledge.

Biomedicine wields hegemony, in the Gramscian sense, in that it achieves consent to govern. An example being Chinese medicine in the UK moving towards standardised procedures and practises. Gramsci's term, hegemony, is about:

> 'Winning and holding of power and the formation (and destruction) of social groups in that process.' (Donaldson, 1993, p645).

Furthermore, Donaldson expands:

> 'Hegemony involves persuasion of the greater part of the population, particularly through the media and the organization of social institutions in ways that makes them appear 'natural', 'ordinary', 'normal'.' (p645).

In such a way, circular arguments, such as those of Colquohn mentioned above, can gain credence.

1.8(ii) Biomedicine's Power over Chinese Medicine Education

Biomedicine asserts its authority through its more common label of being called simply medicine. Such a term relegates all other systems of medicine to require a prefix; Chinese medicine; Korean medicine and so on. This furthermore implies their need to be referenced in relation to biomedicine. Therefore, in this thesis the term biomedicine is purposively used in an attempt to place the medical systems under discussion on more equal grounds.

In China biomedicine is routinely referred to as Western medicine - *xiyi* 西医. Biomedicine literally translates as *shengwu yixue* 生物医学. One Chinese doctor with whom I spoke in Beijing was perplexed as to what was the difference between this and Chinese medicine, stating that they were both biomedicine. Yet interestingly, at the same time she continued to uphold the Western medicine, Chinese medicine divide.

The insidious dominance of biomedicine is further evident in the education of Chinese medicine, both in China and the West. For example, the European Herbal and Traditional Medicine Association (EHTMA), one of the emerging accreditation and regulatory bodies surrounding Chinese medicine in the UK requires a core curriculum for all courses of herbal medicine. This is to:

> 'Ensure competent, safe, effective practitioners aware of the breadth and limitations of herbal and traditional medicine practice.' (EHTPA, 2007, p3).

Whilst it is stated that:

> ‘In all cases, the majority of programme content must reflect the specific tradition being accredited.’ (ibid).[20]

There are increasing requirements to study the biochemistry of herbs and the science of nutrition. Such demands are often placed under the supposition of safety grounds. The emphasis clearly lies in the biomedical component at the expense of the Chinese. Other examples further elucidate this trend. For instance, in China the outwardly equal support of Chinese medicine and biomedicine by the state is exposed as misleading when entry to study medicine is a tiered system. Unlike in the UK, where those studying Chinese medicine have purposively chosen to do so, often as a second career, entry to Chinese medicine college is often the result of wanting to study medicine and not gaining a high enough grade for acceptance on a biomedical course. For those with the highest marks are sent to study biomedicine and the rest sent to study Chinese medicine. Of Chinese medicine doctors I encountered in China, there were a few who had chosen Chinese medicine as a first option, but these were very much in the minority. This was also an uncomfortable topic for doctors of Chinese medicine to discuss with me during fieldwork.

In the UK, practising Chinese medicine is within a culture that largely relegates it to its fringes and which frequently attacks it as being unscientific (as with Colquhoun’s blog mentioned earlier). Practitioners naturally therefore desire validation. How do they find validity and recognition in such circumstances? A common response seen at various levels, including and beyond that of the individual practitioner, such as in education and research, is to seek it from the dominating legitimised medical system. Throughout the

20 The EHTPA also accredit courses of Tibetan, Ayurvedic and Euopean herbal traditions. Chinese medicine in the UK has principally developed as separate practices of acupuncture and Chinese herbal medicine each being governed by different regulatory bodies. This can be seen as a Western aberration. Hence, Chinese practitioners in the UK set up another regulatory body that houses Chinese medicine as a system of which both are integral. This continues as a highly politically charged debate divided primarily along ethnic grounds.

world such a system is undoubtedly biomedicine. It has achieved consent to govern.

This situation is also relevant in modern day China. In fact a lament I heard from several doctors whilst doing fieldwork there, was that young Chinese medical students these days, let alone patients, only understand the language of science and know nothing of the philosophical basis or language of Chinese medicine. This situation is aptly encapsulated by the story of one young Chinese doctor, whom I met in Beijing. She recalled starting medical college. It is common in the Chinese language for one character to have different sounds with different meanings.[21] The young doctor recalled mistaking the character 行. This can be pronounced as hang, meaning company or line of business, as seen in *yinhang* 银行 literally silver business and translated as bank. However, in Chinese medicine it is pronounced as *xing* and means movement or phase and is an important term in Chinese medicine theory as *wuxing* 五行 or five phases of transformation.[22] She recalled how confusing all this theory was and for quite some time she read *xing* as *hang* or lines of business and not surprisingly thought that the texts and teachings didn't make sense. In other words she came to Chinese medicine without awareness of its history, just as practitioners in the West often do,[23] even though she was a Chinese person living in China.

In clinics where staff are not trained in biomedicine, lack modern technology and in which the practitioner actively eschews such knowledge, biomedicine still bears an influence through the patient's language. The dominance of biomedicine is seen through it entering the discourse of lay culture. Thus, it is highly likely that patients will describe their problem using that language; it is

21 In modern Chinese one word usually consists of two characters. Some characters have more than one sound associated with it, each renders quite different meanings. There are only four hundred distinct sounds in Chinese but thousands of words. The use of tones varies the pronunciation and combining a single character with many different characters provide new words.

22 The five phases are: wood, fire, earth, metal and water. Each relates to the other in specific ways.

23 History of Chinese medicine is rarely taught as part of a practitioner's training in the West.

common to hear such phrases as, ‘I have high blood pressure’ or ‘my blood sugar was low this morning’ and so on.

1.8(iii) The Example in Diagnosis

Whilst it is clear then that in contemporary Chinese medicine, whether practised in the West or in China, biomedical information including diagnostic tests are presented by the patient, or sought by the practitioner. Although this information is part of Chinese medicine practice today, it is not rationalised in textbooks of Chinese medicine diagnosis in English or Chinese. For example, one textbook (Deng, 1999) explains Chinese medicine’s diagnostic methods in detail, yet in considering diagnosing palpitations no mention is made of when it would be necessary or appropriate to use an electrocardiograph (ECG). In the section on keeping medical records it simply states that:

> 'The physician must thoroughly grasp the diagnostic methods of Chinese medicine as well as be proficient in other diagnostic techniques and should actively use the methods of inquiry, inspection, listening and smelling and palpation in order to examine the disease condition. *When it is necessary and appropriate*, modern medical instruments should be used to investigate the patient and to aid in the diagnosis.’ (ibid, p503) (italics added).

No explanation of how to interface information obtained from Chinese medicine with that obtained from biomedicine is given, just that biomedical techniques should be also known and used. The implicit understanding is that these would be used when Chinese medicine fails to solve a problem.

One can ask if this is in fact a clear example of shifting boundaries; with modern medical instruments thus belonging as equally to Chinese medicine

as biomedicine? Can such instruments simply be seen as an extension of the Chinese medicine looking diagnosis? Some indeed suggest that modern techniques such as blood tests, using stethoscopes and taking blood pressure are characteristic of Chinese medicine today (Taylor, 2004). Though, Taylor here is referring to the particular practice of Chinese medicine known as TCM. (For the distinction between TCM and Chinese medicine, please refer back to the introduction).

These questions emphasise again that this research cannot be seen as one exploring a simple dichotomy. Despite the appearance of distinct practices with distinct labels, such a dichotomy can never be assumed. Nevertheless, Chinese medicine is taught as a complete system of medicine, in that it provides a way of describing reality using its own internally consistent language, which coherently moves from one stage to the next.[24] Diagnosis draws on this language. When biomedical diagnostic information, such as a CD4 count, is used by Chinese medicine practitioners, it raises several questions; what relevance has a CD4 count in Chinese medicine? How is information external to one system applied in the other? Is this information translated into the language of Chinese medicine or does it tear apart the integrity of the entire diagnostic process? Are practitioners dabbling in biomedicine when using such information? Do practitioners view integrating the two systems of medicine positively or negatively? This research uses such questions to reveal the diversity of opinions held by practitioners of Chinese medicine through which differing Chinese medicines may emerge.

1.8(iv) Chinese Medicine Diagnosis

For readers who are not familiar with Chinese medicine a brief look at the process of diagnosis in Chinese medicine will clarify some of the issues involved in this research. In Chinese medicine, diagnostic methods are

24 For example a patient suffering from wheezing (*xiao chuan* 哮喘) may be described as suffering from wind cold with phlegm fluids (*wai han nei yin* 外寒內飲) - here wind (feng 風) is written as external (*wai* 外) as in this case external implies wind, this may overlap with the biomedical term asthma but does not necessarily correlate with it.

classified as looking - *wang* 望, listening/smelling - *wen* 闻, asking - *wen* 问 and palpating - *qie* 切; collectively known as the four methods - *si zhen* 四诊. The earliest reference giving clear instructions on using the four methods is the sixty first difficult issue of the classic of difficult issues - the *Nan jing* 难经, dated to the first century C.E. (Unschuld, 1986). Diagnosis is based on the understanding that the exterior of the body will manifest the functioning of the interior. However, the diagnostic process can also be thought of as the integration of all these four methods for observing that which is obscure. It fundamentally depends on information obtained through the clinical encounter and is an emergent process (Paterson & Dieppe, 2005).

Hence, Chinese medicine practitioners use diagnostic methods that rely on reading the signs of the body. It is in effect phenomenological; enquiring into a person's experience of themselves in relation to the world as well as via the senses of the practitioner:

> 'The physician…must investigate the disease conditions personally and not write the medical record simply according to personal opinion.' (Deng, 1999, p503).

Here 'personally' implies the use of all senses and 'personal opinion' implies a detached cognitive process. However, a point to bear in mind here is that which is phenomenologically known is not limited to an individual's subjectivity arising from them as an individual, as each person is part of the external (Merleau-Ponty, 1962, p137). The body acts as the expression of illness / disease; through which diagnosis takes place. Here the body is of the patient and is interpreted through that of the practitioner, the practitioner interpreting the patient's condition through her own body. Chinese medicine has been described as 'governing life in oneself or in a patient.' (Larre & Rochat De La Vallee, 1992, p3). Hence doctors are life treating life. Such a

view clearly indicates that engaging one's self in the treatment, not only for the doctor but also for the patient, is integral to the diagnostic process. The doctor's perception of the patient is crucial along with the patient's own bodily experience for diagnosis. Bodily here means not just the physiological body, but body in the phenomenological sense, that Merleau-Ponty (1962) terms 'of 'being-in-the-world', which 'can effect the union of the 'psychic' and the 'physiological''(p80).[25]

Biomedicine's diagnostic method can be contrasted with the above. In biomedicine counterparts to the four methods exist; asking, inspection and palpation are used. However, a doctor would rarely be expected to rely solely on qualitative information (Brown, 1990). Weight is given instead to quantitative analysis of the precise anatomical or biochemical basis of any physiological event, as in for example a CD4 count. Many conditions are identified in biomedicine through tests using diagnostic equipment that reveal information that cannot be ascertained directly through a patient - doctor clinical interaction. Whereas test results can form the basis for a diagnosis in many practices of biomedicine, or confirm a doctor's suspected diagnosis, in Chinese medicine these would rarely be used alone.

1.9 Theories of Knowing in Chinese Medicine

1.9(i) As Well As Truths

What is knowledge in Chinese medicine? It was observed that Chinese medicine texts frequently contradict each other, yet these texts continue to be used in modern practice (Unschuld, 1986). Hence categorising of information as this being true as well as that being true, is at the heart of the corpus of Chinese medicine literature (ibid), even when these truths contradict each other. For example, Farquhar (1994) states:

25 For him embodiment plays a central role in his analysis of our being and the resultant philosophy. Rejection of Cartesian dichotomy is abundantly evident through out 'The Phenomenology of Perception' and his project is to demonstrate that our existence is indivisible and of which the body is an integral aspect.

> ‘Contradiction between tract and visceral systems physiology and pathology and six warps classification could undoubtedly be found. But few Chinese doctors of the Cold Damage persuasion would find such contradictions very engaging.’ (p125).

In such a framework truth is revealed through its usefulness. Unschuld (1987) was intrigued as to how two contradictory truths could coexist without conflict in contemporary Chinese medicine and described this phenomenon as ‘patterned knowledge’. Unschuld (ibid) conjectures that Chinese medicine practitioners may also think in such an ‘as well as’ way in order to use that contradictory information. Such a way of thinking he juxtaposes with an ‘either or’ logic. Unschuld (ibid) suggests that this ‘either or’ logic and its search for the one truth pervades the history of Western thought, where it is found in both religion and science. He questions whether the monotheist Judeo-Christian[26] teaching that states that worshippers should have only one God is a prime drive towards the Western knowledge model. This is due to such a model requiring corresponding explanations. Whilst he acknowledges that there are many strata in each culture he nevertheless points out that Chinese, or East Asian knowledge models, never followed this route. Rather than new knowledge replacing the old, a picture clearly seen in the rhetoric of scientific development, knowledge is viewed as ‘not only but also.’

Whether this is still the case in a world experiencing globalisation, one in which China strives to be modern and scientific above all else is debatable. The data arising from this research can test Unschuld’s (ibid) claim that knowledge models are enframed along cultural lines since participants will include both practitioners in the UK and China.

26 A colleague Mary Dobbin pointed out that viewing Judeo-Christian teaching as monotheist can be disputed if one takes the Father, Son and Holy Ghost to represent a trilogy.

1.9(ii) Knowledge Obscures

Ones epistemological assumptions, particularly when couched in a dichotomous world of true and false, real and unreal, inevitably alter what Chinese medicine is. They potentially limit what can be known and how it can be known. Kuriyama (1999) proposed that how we know the body alters what we can know. He specifically contrasts two medical images, Hua Shou's *Shisijing Fahui* 1341 , a rotund figure with meridians and Vesalius's *Fabrica* 1543 , an athletic muscular form (Figures 1 and 2).

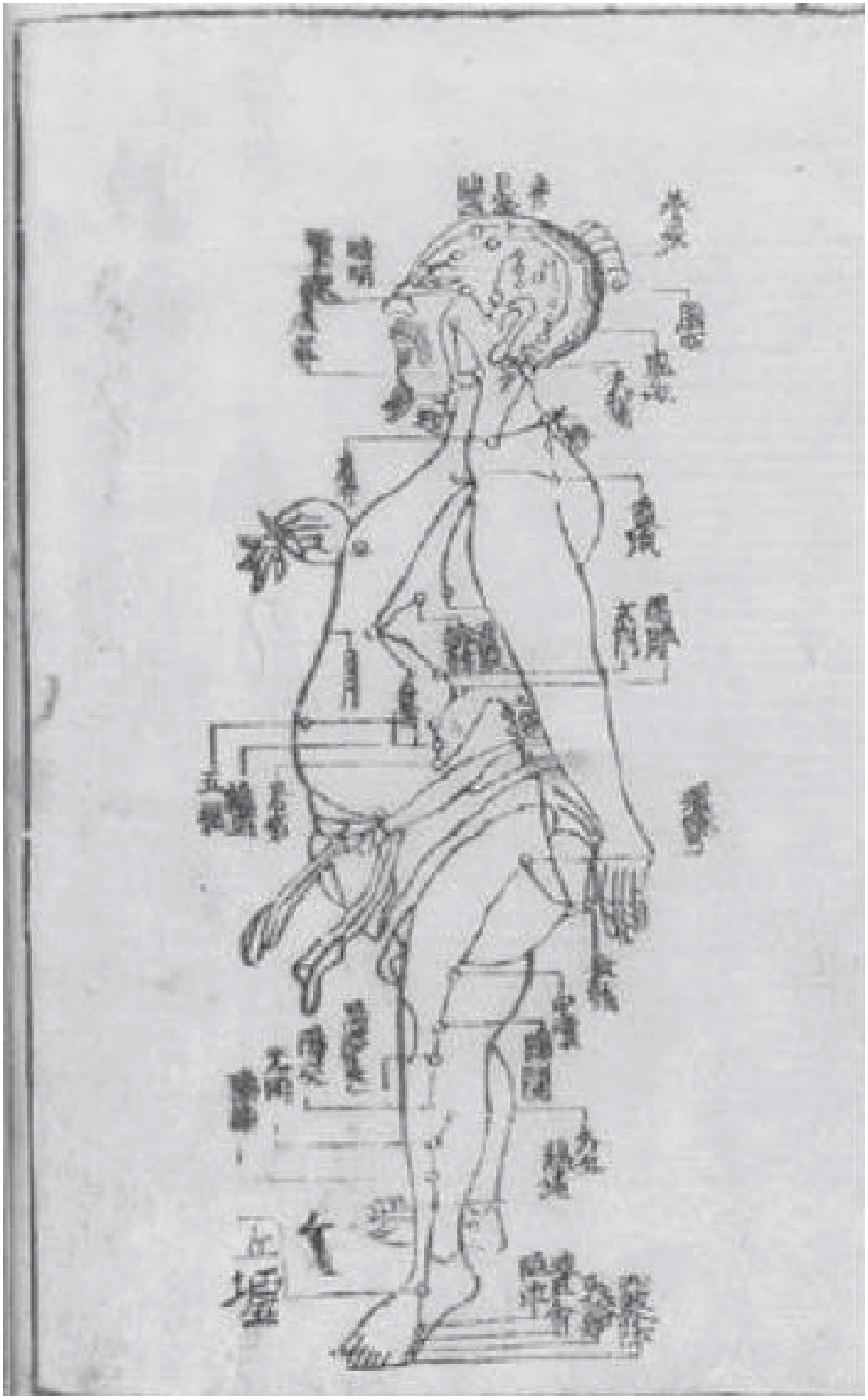

Figure 1: Hua Shou's, *Shisijing fahui*, 1341.

(Courtesy of the National Library of Medicine)

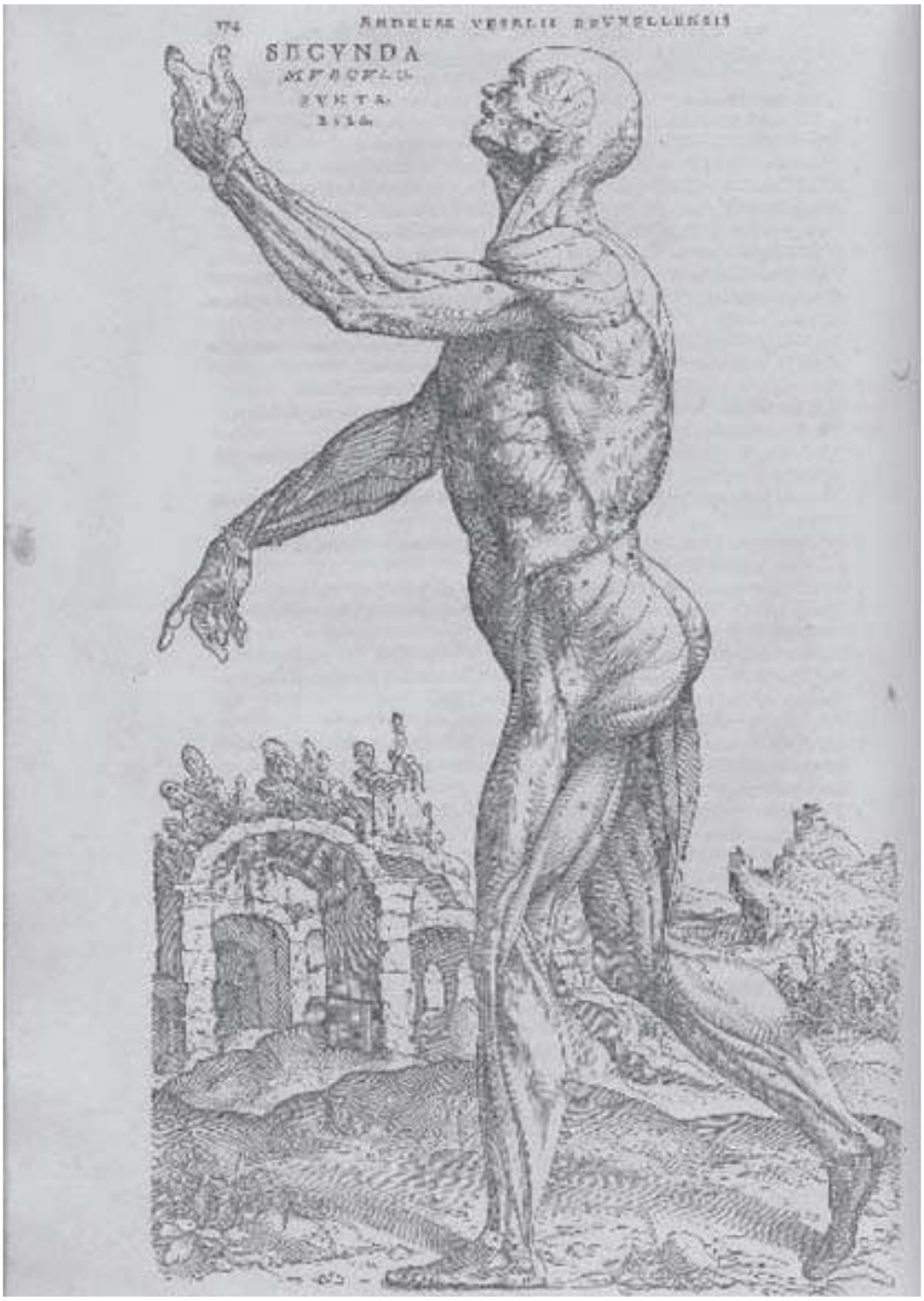

Figure 2: Vesalius's, *Fabrica*, 1543.

(Courtesy of the National Library of Medicine).

Such differences were first seen at the time of Galen (130–200 C.E.) and later Han (25–220 C.E.). Looking further back to the Hippocratic corpus (5th century B.C.E.) and *Mawangdui* scripts (2nd century B.C.E.), the contrasts are not as marked as seen in these later figures; the figures therefore represent historical changes and not timeless attitudes. Kuriyama (ibid) used these two figures to question how something, as basic and seemingly universal as the body, could be depicted in such different ways at different times and in different cultures. He suggests that conceptions of the body owe as much to ways of using the senses as to ways of thinking. With regard to feeling the pulse, Kuriyama (ibid) suggests that Greek and Chinese doctors knew the body differently as they felt it differently. This divergence followed on from the practice of dissecting corpses in Greece but not in China. In Greece this resulted in feeling the pulse at the wrist, as solely feeling the artery as an expression of diastole – dilation and systole - contraction of the heart. Thus, through knowledge based on anatomical dissections, the pulse was linked only with the heart and arteries. This then impacted on how doctors trained their fingers to feel these circulatory 'facts'. Their anatomical knowledge negated not only any other explanations of what was felt, but also the possibility of feeling anything in addition. It altered how doctors trained their fingers to feel these circulatory 'facts.' In contrast, the Chinese were not hindered by such a vision and felt many subtle tremors and other movements in the body. For example, Kuriyama (ibid) quotes from Wang Shuhe's *Mojing*:

> 'Floating mo: if one lifts the fingers there is abundance; if one presses down one finds insufficiency.' (p93).

Wang's statement contrasts strongly with the Greek search for the pre-existing rhythm generated by a beating heart.

Kuriyama's hypothesis opens up the potential for multiple realities, acknowledging that the world can indeed be experienced and understood in

different ways. In the case given, there are differing conceptions of the human body. From such a view, rather than knowledge adding to our understanding, it could actually obscure other knowledge; as can be seen in Figure 1, in Hua Shou's figure, the muscles are obscured by the flesh. This loss of information can be likened to the way that looking through a coloured lens can obliterate the original colour of an object. The Greeks were operating in an 'either or' epistemology, whereas the Chinese not constrained by anatomical knowledge based on dissection could find meaning in other ways. Furthermore, for them the efficacy of pulse palpation *qiemo* 切脉 exposed the limitations of anatomy as a way of knowing the body (ibid).

In this research I consider how practitioners make use of contradictory truths found in the Chinese medicine literature; does obscuring one truth through the lens of another occur, as Kuriyama (ibid) suggests? Or can practitioners think and act in a patterned knowledge way, as conjectured by Unschuld (1986)? In mapping out the diversity of Chinese medicine how these knowledge theories manifest in contemporary practice will be described.

1.10 Incorporating Mess in Research

Having rejected neatly drawn borders between medical systems the inevitable messiness found in diversity has to be taken into account. This research strives to expose that mess, aided in doing so by the use of Law's (2004) method assemblage. It provides a way to look at reality based on what is present, othered and manifestly absent. Law (ibid) discussed these concepts in relation to social science research methods, which he considers, seek to repress mess by making it absent. Mess is taken to be the state of the world, but which is unknowable when it doesn't fit into one's way of knowing the world. Just as with the Greek pulse takers, who could no longer accommodate tremors of the flesh, as these didn't fit into their understanding of the pulse as a direct manifestation of the heart beating. Making mess

absent can take two forms; manifest absence and otherness. The former is what presence acknowledges, the latter is what is unacknowledged. Otherness can include what is left out due to it being considered obvious or uninteresting; the invisible work that makes up research, that which goes on routinely or is simply of no interest. It can also include what is repressed; it needs to be absent to render the presence credible. Law (ibid) claims that methods, in social science ,seek clear coherent answers and achieves this by othering mess. I will draw on this framework as an aid in data analysis, particularly when considering how each Chinese medicine defines itself as distinct from others.

In contrast to an approach that incorporates mess, a dualist approach rests on defining essences and fixing impermeable boundaries that hold these as distinct. Furthermore, in the Foucauldian (2008) sense of governmentality such an approach creates the emergence of further dualisms. Governmentality is the passive acceptance of the need to actively self police. It is a term illustrating links between forms of power and processes of subjectification. These become not only the validated way of seeing but which then structure technology to create a further validation of a dualistic world. This is illustrated for Chinese medicine in the following chapter, which shows how biomedicine's power exerts effects on Chinese medicine research. Foucault's concept of governmentality acknowledges the agency of objects in a way later reiterated by Pickering (1993). Pickering is part of a wider research tradition that seeks to go beyond 'humanism' in the social and human sciences. Through governmentality control is thus exerted from within.

In this research particular attention is paid to not only go beyond essentialist dualist ideals, but to allow for minority voices within the diversity to be heard. Describing the range of diversity, like documenting the species present in an ecosystem, can highlight those practices little heard of, possibly endangered, at risk of becoming extinct, or simply existing under the radar surprisingly

robustly, simply where no one has previously looked. The method I employ to achieve this is called Q methodology. This is introduced in detail in Section Two. Here it is suffice to say that this method is chosen particularly for its ability to make manifest hidden voices which are easily overlooked by other methods; it can find new species. It is also noted for its challenging of dualisms, especially that of objectivity and subjectivity. In addition, it also crosses the qualitative quantitative research divide. As such it sits comfortably in neither research camp, nor is it viewed comfortably from either. Furthermore, as will become evident, it can be said to be well ahead of its time. It was introduced in 1932, long before Kuhn's major work (1962). Nevertheless, Kuhn has been attributed as the originator of social studies of science (Hacking, 1981), whereas Stephenson, the inventor of Q methodology, could rightly be given such a title as an early and largely unrecognised proponent of the subjectivity of science.[27]

1.11 Boundaries of Knowledge: Negotiating Paths Through Complexity

Having made a case for the permeability of boundaries and for knowledge potentially able to obscure other ways of knowing, the question arises of how do these heterogeneous practices communicate with each other? They all belong under the umbrella term of Chinese medicine and share texts, patients, equipment and at times geographic sites and will to greater or lesser degrees inevitably encounter each other. For example, in the UK it is common for Chinese medicine practitioners to work in the same clinic but to practice quite different Chinese medicines. Each Chinese medicine practice can be described as a social world; a lineage; a school of thought and there may not be consensus between them. For as has been pointed out earlier (Unschuld, 1986), the knowledge of some practices of Chinese medicine contradict that of others. When practitioners communicate with practitioners from another lineage, when their worlds intersect, how does the information

27 See for example, STEPHENSON, W. (1972). "Applications of Communication Theory 1. The Substructure of Science." The Psychological Record 22: 17-36.

get translated, when any aspect, such as a pulse, can mean different things to each? The concept of ‘boundary objects’ can be employed here, it offers a possible explanation of that process. A boundary object has:

> ‘Different meanings in different social worlds but their structure is common enough to more than one world to make them recognizable, a means of translation.’ (Star & Greisemer, 1989, p393).

The process of managing boundary objects is important for developing and maintaining coherence across different practices. They can provide a route whereby a practitioner gains access to other ways of knowing. However, this will only occur when an ‘as well as’ mode of thinking is employed. Thereby practitioners can enter the knowledge base of others.

Practitioners seek credibility by distinguishing their practice as ‘classical’, ‘traditional,’ ‘scientific,’ ‘medical’ and so on, dependant on whom they wish to exclude and the audience with whom they wish to communicate. Yet they are moulded by the many contradictory Chinese medicines they encounter on their route to becoming a practitioner and there is thus a need to find a way whereby they can pool these resources; to be able to draw on the contradictory knowledges that co-exist. Where they end up, their identity as a practitioner will always be multiple.

This chapter has clarified the aims and objectives of this research, reviewed the literature concerning the diversity of Chinese medicine and considered theories of knowledge in the practice of Chinese medicine. The hegemony of biomedicine has been established and method assemblage and boundary objects introduced, these concepts will be utilised later on in the analysis section. The following chapter returns to questions arising when asking what

is considered valid knowledge in Chinese medicine in a world dominated by biomedicine and why and how medical systems are presented as wholes.

Chapter Two: Multiple Impacts of Biomedicine's Framework on Chinese Medicine Research

2.1 Introduction

Early on in this research process, through literature review and discussion with practitioners, it became evident that there was a dominant view held by the majority of practitioners regarding the influence of biomedicine on Chinese medicine practice. It was one tacitly accepting both biomedicine's allegiance with science and the need for Chinese medicine to adhere to such standards. Furthermore, there was the assumption that the two medicines together could build a more complete picture of reality, similar to the idea expressed in the following quote:

> 'Each map is considered valid in itself, yet when considered together they provide a closer approximation to reality than is possible when each is taken alone.' (Dacher, 1995, p57).

In this chapter I seek to consider the impact of such an epistemological stance by looking at two Chinese medicine research papers in detail. Both hold biomedical science up as the unchallenged standard that Chinese medicine should adhere to, yet the resultant studies interpret this in entirely different ways. First, I show how the object of study becomes changed through the act of research and ask is this a loss or a gain for Chinese medicine? In the second example I illustrate why Chinese medicine is particularly prone to the use of scientific rhetoric, rendering it liable to being viewed as pseudoscientific. I consider if describing Chinese medicine as pseudoscientific is based on a naïvety regarding science's own context bound nature and its use of rhetorical ploys. Contrasting the interpretations of science found in these two papers emphasises how science changes according to context - it is not insensitive to culture or application. Furthermore, it is evident that rhetoric is a tool that allows for medical systems to be presented as closed and static wholes. Finally, the chapter

concludes that in order to explore the multiplicity of Chinese medicine it is clear that there is a need to go beyond the dominant views found in these papers, to hear the silenced voices of the minority of practitioners holding different stances. This leads onto the following section which describes the method in detail by which this is achieved.

In the previous chapter the hegemony of biomedicine over Chinese medicine was discussed. How this manifests is evident in the literature examined here. First, I will look at a study carried out in Germany by Western researchers seeking to standardise and evaluate Chinese medicine tongue diagnosis (Gareus, et al., 2005). Then I will look at a survey of Chinese medicine practitioners carried out in China (Chen & Lü, 2006).

As a background to looking at the tongue diagnosis research paper, it is useful to recap that Chinese medicine uses four diagnostic methods; looking – *wang* 望, listening and smelling – *wen* 闻, asking – *wen* 问 and palpating – *qie* 切. Looking includes describing the tongue to assist in diagnosis; the shape, colour of the body and coating, presence of cracks, moistness and movement are noted. Furthermore, all of these qualities have different meanings dependent on where they occur on the tongue. Importantly, Chinese medicine looks for groups of symptoms and signs, integrating information from the four methods mentioned above, hence no single one observation has meaning when standing alone.

2.2 Tongue Diagnosis Under Scrutiny

The study under consideration is just one example from an enormous pool of studies aiming for the 'clinical modernization of Traditional Chinese Medicine (TCM[28]).' (Gareus, et al., 2005, p20). For example see any of the following

28 As noted in the introduction section of this thesis the term TCM is used by Chinese when writing in English in Chinese the term would simply be Chinese medicine.

references; (Wei, et al., 2002; Zhou, et al., 2004; Pang, et al., 2004; Yue & Liu, 2004; Liu, et al., 2003; Zou, et al., 2003; Li, et al., 2003; Cui, et al., 2001; Han & Yu, 1993). In order to modernise, objectivity and quantification of the diagnostic process is aimed for. All such studies are based on the view that whilst tongue diagnosis is an important diagnostic method in Chinese medicine:

> 'Due to its qualitative, subjective and experience-based nature, traditional tongue diagnosis has a very limited application in clinical medicine.' (Pang, et al., 2004, p1803).

Such a statement assumes that bodily signs, which are markers of a potential pathology, exist separately from the person with the condition. Hence, they can be quantified and clinicians can then read them as detached observers. This primary assumption of the detached observer, is based on the realist view that all objects (here, tongue colour) have an independent meaning and reality separate from the observer (Wilson, 2000). Hence, two observers viewing the same thing, will see the same thing. However, Gareus, et al.'s, (2005) study found that despite their standardisation of parameters (such as lighting) that allowed for reproducibility of good quality images, different doctors saw different things and the same doctors saw different things at different times. This leads to the question of, how can this be possible from the standpoint of observation being value free and objective? One can only conclude that there is never value free observation rather that it is always subjective.

I illustrate below some important implications of using a logical positivist epistemology of the natural sciences to research Chinese Medicine. Furthermore, outlined is how the theoretical assumptions underlying the tongue diagnosis study serve to alter how the tongue, as a diagnostic sign, is known.

2.2(i) Pixelating Colour

Consider what is under examination. Firstly, the colour of the tongue body and its coating, as part of the observation of the patient. What this study assumes is that colour is independent of its context; a red living moving moist tongue has the same redness as a two dimensional photograph of that tongue, or of a plastic red button of the same hue. In such studies colour is defined by terms such as pixels and chromatic algorithms, colour then becomes a quantifiable entity (Zhou, et al., 2004). Also fundamentally assumed is that not only do colours have meaning in isolation, that is they are 'real facts' but also that the observer taints none of these 'facts'.

An historical and linguistic look at the Chinese term for colour challenges the very relevance of such an objective and static stance. The looking diagnosis in Chinese medicine involves looking at physique, gait, posture, swellings and sores, but mainly:

> 'Gazing upon colour – *wangse* – 望 色.' (Kuriyama, 1999, p167).

Colour - *se* 色 was tied in with classical theories which saw the body as a microcosm of the macrocosm, both ruled by the ever changing *wuxing* 五 行 or five phases, which manifest in the five colours and are correlated with many other phenomena. However, connecting looking and seeing colour in medicine, as opposed to seeing form, for example, predates such theories, dating back to Mencius (371-289 B.C.E) (ibid). Kuriyama further enlightens us by exposing the original meaning of colour, *se* 色, as not simply or directly designating hue, but originally as the look on a person's face. This term came to be later used for the realm of phenomenal appearance, in the Buddhist sense of the dimension of being itself. The Chinese character for gazing, *wang* 望, of gazing upon colour *wangse* 望 色, is made up of a picture of someone stretching forward to catch a glimpse of the distant moon.

Its etymology springs from two characters meaning to be absent and obscure. That is *wang* 望 to gaze expresses the effort of seeing something difficult to make out. Hence Chinese medicine's use of colour as a component of diagnosis developed from reading faces and was a learned skill dependent on the lookers experience and ability to perceive the subtle. What could be seen was dependent on who was seeing, thus it is hermeneutic. Many doctors, I encountered in China, suggest that the most advanced doctors are those believed to be able to diagnose through looking alone.

Applying this 'gazing upon colour' to the tongue study shows how adopting a logical positivist epistemology restricts ones reality to a realist ontology; in which what is sought is agreement between all observers, at all times. Thus, observers are asked to restrict their seeing to one fact, here the redness (or any other colour) of the tongue. In seeking to achieve this, the research design removes much of what is perceived in a living person – one who endlessly changes, their being. Aspects to which, the designers of this research themselves may be blind – such as how a tongue is presented for examination – gently protruded, timidly hidden, stiffly stuck out etc.; are all aspects that would combine in assessing the meaning and categorisation of other aspects, such as colour. The heart of the meaning of colour - *se* 色, is more than quantifiable colour. It is, at the very least, colour manifesting in a person. However, by adopting an epistemology that objectively looks for standalone facts, the complex of what is colour - *se* 色 cannot be known. Hence, some current research, such as the study considered here attempts to remove the clinical gaze from its observer dependent context, through taking away some of what may constitute colour.

2.2(ii) Research Shaping Practice

Foucault's (2006) work argues that the search for knowledge does not simply uncover pre-existing 'objects'; it actively shapes and creates them, this is

evident in this study, where all those aspects of colour are reduced to a photographic image that could not hold the meaning implicit in colour - *se* 色. If the technology used in the tongue study was widely adopted as the standard way to look at the tongue, one can postulate that Chinese medicine doctors in the future would only be able to see the tongue through reducing it to a two dimensional image, in much the way much of biomedicine is restrained from acting until a test result validates such action. One wonders why in this study the observer was not also replaced by a machine; the authors wanted to design a clinically useful tool to standardise tongue diagnosis; the ultimate extension in doing this would be, to not only symbolically dissect the person being diagnosed but to also remove the observer. It would seem a logical further step to have a machine that takes the picture, reads it and tells the clinician the result. Such a process resembles much of biomedicine's diagnostic tests in place today; Chinese medicine practiced in this way is willing to discard all that does not fit into a realist's objective reality.

The strength of the belief in the need for and the ability to obtain objective data can result in both more expensive medical care and less effective results. A recent survey (Coulton, et al., 2006) undertaken in the UK aiming to identify alcohol related health problems provides an example; it found that asking about alcohol use had a higher sensitivity, specificity and positive predictive value and was more cost efficient than biochemical markers. Yet such methods of asking and listening, integral to any clinical encounter are placed at the lower spectrum of knowledge in a medical system that is value laden towards a positivist epistemology. Other contradictory examples can be found in medicine where a positivist epistemology does not support actions, such as prescribing antibiotics for viral illnesses (Wilson, 2000), yet a more interpretive and subjective model would be able to explain such actions.

In the tongue study we are reminded of Foucault's (1973) thoughts on how the observing gaze of the clinician became institutionalised. It seems to me that the use of devices to see the tongue, here complex photographic equipment by which the patient is fixed and rendered visible in a one-way direction, can be likened to a mechanism of 'panopticism', that Foucault used to describe systems of power (Rabinow, 2006). A panopticon is a prison building with a tower at the centre whereby prisoners can be seen. Prisoners know they are under scrutiny but not when, hence it acts a disciplinary mechanism. In the prison example power over people's actions is achieved through architecture. In the tongue diagnosis case it would be twofold; a technological device to place the patient subordinate relative to the doctor / practitioner, yet also placing the doctor / practitioner subordinate to the demands of political influences demanding standardisation. Political power is wielded over a doctor's subjective opinion achieved through an unquestioned superiority of the objectivity of the machine. Even when what is seen to be objective itself has a history that shapes both the object of scrutiny and the subject applying that knowing (Daston & Galison, 2007).

Kuhn's (1962) concept of paradigms adds weight to the idea that what you know determines how you can know (Sardar, 2000). In this study, the conceptual scope of the biomedical paradigm determines what is irrelevant; in the tongue study what the observer brings to the looking, as well as the contextual nature of colour. The same tongue, according to the dominant paradigm, should not be described in different ways and to limit the possibility of this occurring it replaces the living tongue with a quantifiable coloured image of the tongue. 'Irrelevant' aspects, such as a tongue being three dimensional, having form and being alive are removed. Clearly this epistemological position renders colour in the wider context described above not only unknowable but also irrelevant.

Gareus, et al.'s, (2005) research could not prevent the doctors' gazes from varying; rather than seeing this as the interesting fact to explore, it is

presented as the flaw in the study that needs to be resolved for Chinese medicine's looking diagnosis to be of value. What the study limits itself to, is a view that valid scientific knowledge is based on data that is inter-subjectively univocal, objective through inter-subjective agreement and requires brute data (Taylor, 1973) (here colour of the tongue). Furthermore, it excludes therefore judgement, data that is disputable and data that is interpretable, which would account for this study's actual outcome rather than its intended outcome.

The criticism of tongue diagnosis as being qualitative and subjective hence of limited use in clinical medicine fails to acknowledge that there is a debate regarding how to apply 'science' to the individual and adequately represent clinical knowledge involving human interaction, which cannot fall within a classical logical positivist definition of science. As has been pointed out, such a view creates a gap between medical research and clinical practice (Malterud, 1995). It follows the philosophical views of the logical positivists that those aspects of clinical practice not empirically verifiable have a metaphysical base and are irrelevant. It removes what is often termed 'the art' of medicine.

In order to incorporate subjective clinical knowledge therefore, an alternative to the existing biomedical epistemology is required, allowing for a broader definition of scientific knowledge. The validity of the underlying assumptions on which this study and medicine in general is based, that disease is a natural phenomenon, independent from a particular person and has a specific causal agent, follows an inevitable course and the doctor is a neutral observer of facts, whilst the patient is a passive recipient of care, are challenged by both Kuhn (1962) and Taylor (1973) who both agree that human and natural sciences are not of the same kind. Clinical medicine clearly bridges both worlds, yet the dominant biomedical model seeks to solely view evidence from the natural sciences as valid. In contrast, this PhD research embraces subjectivity, making it the focus in generating data.

According to Kuhn's (2000) concept of incommensurability if competing 'paradigms' or 'world views' cannot rationally be compared, we have no means to judge the truth of any particular view. Yet it appears that for Chinese medicine, in China and in the West, one paradigm is clearly dominating as representing the truth, that of positivism. To understand another worldview, one in which hermeneutics is fundamental, knowledge will be lost, or obscured due to the incommensurability of what is taken as objective truth. This is seen in the tongue study considered here, where the complexity of *wangse* 望 色, gazing upon colour becomes irrelevant. This can explain why doctors saw different things at different times, both inter-personally and intra-personally; there was too much relevant information removed to see the real condition of the tongue. One's epistemology determines not only what can be known, but also how it can be known.

The impact of what is taken as valid knowledge impacts on Chinese medicine's reception; Sivin (1990) questions the future of Chinese medicine practice, he proposes that it is dependent on one's theory laden view which, for post communist Chinese, is based on a biomedical body. He suggests that Chinese people educated before 1949[29] have an affinity with Chinese medicine because they use *yin-yang* 阴 阳 and the five phases *wu xing* 五 行, not the language of anatomy and physiology, to understand their bodies. Whereas, he suggests, that for later Chinese generations (including the young doctor discussed in the last chapter who read 行 as *hang* not *xing*), Chinese medicine has less resonance since they identify their bodies as a collection of physical and chemical processes. This view implies the demise of or at least a fundamentally changed Chinese medicine through biomedicine's dominance in the educational system, just as with research, including the papers reviewed here, it also perpetuates the hegemony of biomedicine over Chinese medicine.[30]

29 1949 marks the formation of the People's Republic of China.

30 For a paper arguing that digital imaging in tongue diagnosis results in innovation of Chinese medicine, rather than a loss for Chinese medicine see LEI, S. H. L. 2011. Standardizing Tongue Diagnosis with Image Processing Technology - Essential Tension

2.2(iii) The Human Element Remains

The practice of medicine straddles the natural and human sciences. Whilst Kuhn (2000) asks if the differences between the two are merely degrees of maturity, he acknowledges that Taylor's (1973) drawing of the dividing line is firmly in place. The line for Taylor is between on the one hand, that which is absolute, independent of interpretation and for which concepts do not shape and on the other that requiring interpretation requiring understanding in terms of meaning rather than in generating laws. An example of the former is rocks and the latter behaviour. Whereas, in Gareus et al.'s (2005) study we see an intended moving of those lines, attempting to push all of medical practice into the natural sphere of facts, which I argue, inevitably results in affecting how and what we can know. There is also an interesting contradiction in the design of the study. Namely, the criteria for choosing doctors to take part in the study, is that they are experienced. Therefore there seems to me to be an implicit acceptance that clinical reality is hermeneutical and further supports the notion that one's capacity to understand is rooted in self-knowledge (Taylor 1971). However, by choosing experienced doctors to take part, with their capacity to understand (what is a red tongue) being linked to their personal development, the very basis of the study (Gareus, et al., 2005); that a red tongue is brute data is contradicted.

It is clear that no stage of medical research or practice is value-free (Veatch & Stempsey, 1995). The trend for adopting the hegemonic biomedical epistemology in human sciences research is found in other disciplines such as psychology, where despite ongoing epistemological and ontological debates, positivist research attracts the bulk of funding. Whilst such research has power to shape the practice of Chinese medicine on a large scale, equally of interest for this thesis is to consider how such an epistemology is interpreted in different contexts. This is the subject of the rest of this chapter. Furthermore, also of interest to the aims of this thesis are those less powerful practices that have escaped those dominant influences and which

between Authenticity and Innovation. In: SCHEID, V. & MACPHERSON, H. (eds.) Integrating East Asian Medicines into Contemporary Healthcare.

ethnographic accounts cite when showing that Chinese medicine consists of a diverse range of practices.[31] The method by which this is achieved is the topic of the following two chapters.

2.3 A Scientific Survey Under Scrutiny

The second paper (Chen & Lü, 2006) is a survey based on a positivist epistemology. Its scientific worth is first considered using scientific peer review criteria that assumes their universal standard. Then a paradox arising from such criteria, with researchers of Chinese medicine carrying out research that does not meet the criteria that they themselves hold up as necessary is discussed. Thirdly, a brief history of the special role that science plays in China is considered, placing this research paper in its historical and political context. Lastly, the employment of scientific rhetoric in Chinese medicine research seeks to add a further explanation to the apparent paradox.

2.3(i) Survey Critique

Below is a tabulated critique of the survey research carried out in China by Chinese researchers (ibid). This critique is based on standard peer review criteria accepted for scientific surveys in the West. The column on the left lists criteria used to assess a paper's reliability and validity (Fowkes & Fulton, 1991; Greenhalgh, 2006). The limitations of this survey are identified as shown in the second and third columns. This is followed by additional critical comments.

31 Particularly see SCHEID, V. 2002, Chinese Medicine in Contemporary China: Plurality & Synthesis Duke University Press and Hsu, E. 1999, The Transmission of Chinese Medicine Cambridge University Press, Cambridge.

Table 3: Survey Critique

Standard criteria used in critical analysis of a scientific paper	Criticism	Specific example
Identify major flaws in the abstract	Undefined terminology	'Modern medical research method,' 'modern scientific method'
	Conclusions not logical	'Integrative medicine fulfils patients' social needs'
What are the precise objectives	Vague outline of these and they change through the paper	'Survey aimed to attain further knowledge about the status and existing problems of integrative medicine all over the country'
Have objectives been met	As these are not clear this is unanswerable	
Overall study design	Not specified beyond the level of survey, for example if it is cross-sectional or postal is not specified	'National survey'
Appropriateness of design to aims	As aims are not clear this is unanswerable	It is questionable if a survey question offering just three choices can be described as revealing practitioners' opinions on the problems faced by integrative medicine.

Representativeness of study sample	Source of sample heavily biased	Primarily used doctors working in integrated medicine hospitals
	Sample size	No justification given
	Entry criteria and exclusions	None given
	Non respondents	Not discussed
Quality of measurements and outcomes	Validity	Questions skewed to obtain answers that are wanted
	Reproducibility of measurements	See discussion of figures given below.
	Blindness – influence of researchers on the respondents	This was not discussed, nor how the questionnaire was presented to participants
	Quality control not mentioned	Such as for data entry
Completeness	Missing data – there appears to be selectivity in reporting of results	11 questionnaires designed, with 5 question results tabulated
Distorting influences	Setting in which surveys were filled in is not stated - group / individually	No information is given
Overall judgment	Depends on objectives and overall study design, neither are clearly given so results would be dismissed by scientific peer review	Poor scientific quality

Further to the problems outlined in the above table, the figures used throughout the paper, are not clearly presented and appear to be conflicting. For example, in the abstract, percentage figures are given followed by statistics that do not tabulate:

> ‘Most of the 6595 respondents held……’ n= 2380 or n=2920.

Then on the first page it states that 19824 medical professionals were investigated, among these were:

> ‘11835 engaged in the field of integrated medicine, 3172 are integrated medicine therapy doctors and also, 797 are registered doctors providing Western medicine in the same institution’.

How the survey was actually conducted is not clear, as there appears to have been various methods used for different questionnaires but this is not explicit:

> ‘We sent out more than 20,000 copies and received back over 12000 copies’
>
> ‘When 3480 participants were asked …’
>
> ‘Of 2748 participants who were asked…’
>
> ‘An on the spot investigation proved that…’ [n=37]
>
> ‘Over 50% of all respondents (n=7401)’
>
> ‘Of 24 questionnaires collected from PUMC….’

Overall the scientific credibility of the above paper is seriously in doubt. The paper's conclusions would not be considered valid for publication in a peer reviewed medical journal in the West. So what can be made of this situation? Rather than dismissing the survey as unscientific and of poor quality I put forward an alternative explanation in the paragraphs that follow. It should also be noted that this paper is illustrative only and not uniquely singled out for comment.

2.3(ii) The Paradox

On the one hand in China today, Chinese medicine doctors hold science up as revealing the truth, with biomedicine being considered scientific medicine and Chinese medicine needing to be accountable according to its criteria. Yet paradoxically Chinese medicine research, as shown above and in the literature is consistently criticised, at least in the West, for its poor scientific quality (Yu & Gao, 1994). Statements such as the following are far from uncommon:

> 'The quality of trials of traditional Chinese medicine must be improved urgently.' (Tang et al., 1999, p160).
>
> 'Some countries publish unusually high proportions of positive results. Publication bias is a possible explanation.' (Vickers et al., 1998, p159).
>
> .

Are we to conclude that these (eminent) and other Chinese medicine researchers have not grasped the basic principles of scientific research design, or that scientific principles are beyond their understanding? The critiques cited above suggest so; however, I propose that such explanations are disparaging and are biased. It is necessary to ask, what other factors are at work?

In order to answer these questions it is first useful to consider the role of science in China today, through a brief historical review of its emergence relative to Chinese medicine. Secondly, I outline why Chinese medicine provides a particularly clear example of the use of rhetoric in science. Finally, viewing science not as an absolute abstract entity, but as consisting of heterogeneous practices, brings the peer review process itself under scrutiny and places critiques such as those cited above in their particular contexts.

2.4 Biomedical Science in China; a Brief History

The science / pseudoscience debate has a long history in China and persists right up to the present. It is interesting to consider how such categories and distinctions; science and pseudoscience[32] are drawn up, by and for whom, in what context and for what purpose. In the previous chapter this was discussed regarding the position of Chinese medicine in the UK, here the Chinese views on the subject are placed in their historical context.

2.4(i) Late Qing Dynasty[33]

Following defeat in the Opium wars with Britain (1839-1842) many nations imposed unequal treaties on the Chinese. This situation forced Chinese intellectuals to explain the decline of China. They did so through embracing the West's social Darwinism that saw ability according to race, with white at the top. Within such a hierarchy Chinese were not at the bottom, yet their losses could then be explained as inevitable (Bu, 2009). However, such white supremacy arguments lost steam following the defeat of China in 1894 to the hands of the neighbouring Japanese. Rather than race being the key to winning battles the Chinese then saw the reformations that had occurred in Japan as the key. Furthermore, the white supremacy idea was proved false when Japan won the Russia - Japan war of 1905. This gave rise to the modern Chinese nationalist movement and many students were sent to

32 Other categories that could be considered include traditional: modern, the West: China and so on, the boundaries of each can be drawn in many different ways.

33 The *Qing* dynasty ran from 1644 until its fall and the commencement of the Republican Era in 1912.

Japan to study and learn their secrets of success. Darwinist ideas of survival of the fittest and natural selection were adopted as explanations for improving society through individuals' fitness (ibid). New policies were commenced by the Qing government following further defeats by foreigners, such as in 1901 during the Boxer Uprising. However, the public health campaigns placed Western medicine clearly at the heart of modernisation.

2.4(ii) The Republican Era

The debate of what is science and pseudoscience emerged in China after the introduction of the term for science, *kexue* 科学 in the 1900s, which occurred following the introduction of the Japanese word *ke*, meaning making things orderly (Rogaski, 2004). It was introduced by returning Chinese scholars who had seen the evolution of public health campaigns in Japan (Lü, 2006a). This, for the first time in China associated biomedicine with science.[34]

China adopted public health and education reforms. These rested on the assumption that through strong healthy individuals a strong Chinese nation would emerge. Such health campaigns emphasised scientific explanations and the use of Western medicine. At this time Christian missionaries were setting up hospitals and treating the sick as a means to evangelise the Chinese; thereby western medicine was becoming an established social force. The Young Men's Christian Association (YMCA) organised public health lectures and found that educated Chinese people were not only attracted to scientific knowledge but also greatly respected it (Yui, 2009).

The Chinese Medical Missionary Association (CMMA) and the YMCA jointly staged a public health exhibition in Shanghai in 1915 to showcase scientific knowledge of Western medicine and preventive medicine (Bu, 2009). During

34 Chinese medicine encountered medicine from the West in China with the Jesuits and missionaries arriving in the 1600's. However, the influence of this encounter is not directly relevant for this historical introduction focusing on biomedicine as science.

the first decade of the 20th century the returning scholars from Japan as well as Europe and the US were instrumental in setting up a National Medical Association of China (NMAC). There was tension between the CMMA, the YMCA and the NMAC since their aims differed, the former two used public health to evangelise, for the latter advocating modern medical science served the nationalistic effort to strengthen and modernise the Chinese nation and thereby halt the authority of colonial powers (Ibid). Nevertheless, they joined forces in 1916 to form a joint council on public health education. Science and public health became measures of the nation's strength.

Students were encouraged to study Western medicine with scholarships and prizes given for winning essays on public health. The message was popularised through exhibitions and campaigns often drawing on popular stories such as 'Brother Fat versus Brother Lean' (Ibid, p114); with health being the opposite of today's understanding of such a message.

Rogaski (2004) details how the hegemony of biomedical conceptions of health and disease grew through the 1900's up to the establishment of a new Republic in China, in Nanjing in 1912[35]. Such a situation positioned Chinese medicine with the old and therefore non-scientific, as the nation strived to attain foreign values and shake off a humiliating past of foreign rule. By the early 1900's science held epistemological authority among Chinese intelligentsia and science and technology were held up as representing power, progress and modernity (Fan, 2007). However, not all intellectuals wanted total Westernisation; although those supporting Chinese medicine wanted to improve it through embracing Western medicine's influence (Croizier, 1968). Scientisation - *kexuehua* 科学化 and modernisation - *xiandaihua* 现代化 were viewed as essential tools to achieve the aims of forging an independent national identity and to shake of memories of imperial

35 In February 12, 1912, the Manchu court announced its abdication, thus the *Qing* dynasty (1644-1912) ended and the Republican Era commenced.

domination. This for some eminent Chinese meant rejection of Chinese culture; Deng Songnian 邓松年, a Western trained doctor urged the government to promote scientific medicine and likened Chinese medicine to quackery (Bu, 2009). Chinese medicine doctors formed a committee in 1914 to appeal to the government of Yuan Shikai 袁世凯 to support Chinese medicine. But they failed and Chinese medicine was branded unscientific and mere superstition. Western medicine was instead officially recognised in a 1915 presidential mandate for officials (Ibid). Chinese medicine was again attacked as being scientifically groundless in 1916 by Yu Yunxiu 余云岫, the president of the Medical Practitioners Association of Shanghai - *Shanghai yishi gonghui* 上海医师公会 (Xu, 1997). Then, in 1929, medical modernisers, led by Yu Yunxiu gained support of the Ministry of Health, for a proposed six stage[36] process, which would culminate in a total ban on the practice of Chinese medicine. Recall from Chapter One, a similar move was made again by Chinese scientists in 2006. The proposed ban during the Republican Era was based on the grounds that Chinese medicine was not scientific (Fruehauf, 1999; Lei, 1999; Xu, 1997; Croizier, 1968) just as it was in 2006. Viewed through a socio-evolutionary perspective of science, Chinese medicine was seen as backward, superstitious or even fraudulent (Hinrichs, 1998).

In 1929 however, this proposed ban served to bring together, for the first time as a unified voice, Chinese medicine doctors whose numbers were far greater than those of biomedical doctors (Xu, 1997). Furthermore, they were strongly supported by native drug traders and trusted by the general public.[37] This unifying movement has been called an epistemological event which

36 One of these stages was forbidding mass media and publishers to advertise or publish unscientific medicine, a process that is going on today in the UK. Recent changes to advertising laws forbid Chinese medicine practitioners (and other complementary therapists) from claiming to treat or even imply that they treat though patient testimonials, any disease other than dental pain and arthritis of the knee. In the Republican Era in China the key word was 'scientific', in the UK the keyword is not so far removed being 'scientific evidence'.

37 The doctors set up March 17th as national medicine day to celebrate Chinese medicine annually, whilst this is not very important in China today where there is state support it was taken up by Hong Kong Chinese medicine doctors under British rule who had no such state recognition. It is also celebrated by Chinese physicians in California who face similar battles for recognition, see FAN, K. W. 2008, "The Development of Chinese Medicine in Hong Kong", Thieme Almanac pp. 134-139.

marked the adoption of a modernist discourse by which Chinese medicine doctors first started to scientise Chinese medicine (Lei, 1999). Chinese medicine practitioners cleverly used the national movement to support their cause naming their medicine, national medicine - *guoyi* 国医. This move enabled them to reject more derogatory titles such as old medicine - *jiuyi* 旧医, which had placed Chinese medicine in opposition to biomedicine, then known as new medicine - *xinyi* 新医. There is no doubt that adopting this name harnessed the power associated with the nationalist movement and was a major factor in Chinese medicine's survival at that time (Karchmer, 2005). Chinese medicine doctors claimed that national medicine protected and represented the national essence - *guocui* 国粹 against Western imperialism, building on fears that modernisation would mean Westernisation and loss of economic autonomy (Xu, 1997). However, many Chinese medicine doctors at the time also accepted the need to scientise - *kexuehua* 科学化 Chinese medicine. Whilst there were some resistant voices, such as Ding Zilang 丁子郎 who rejected biomedical germ theory of disease, these were however very much in the minority (Rogaski, 2004). Echoes from the past were heard more recently with similar acceptance of the need to scientise; in 2000, a Chinese medicine doctor published an article calling for the need for Chinese medicine to be restructured, in line with the biomedical stance, which he viewed as superior to Chinese medicine's (Lai, 2010). Whilst this fuelled debate among Chinese medicine doctors rejecting such a stance, many of those objecting, nevertheless also accepted the need to scientise Chinese medicine, it was just the way that this should be done that was debated (ibid).

2.4(iii) The Early Communist Era

With the end of the nationalist era and the rise of communism in 1949, Chinese medicine was given official state backing for the first time. Its name changed from national medicine *guoyi* 国医 to Chinese medicine *zhongyi* 中

医 in order to differentiate it from Western medicine (Taylor, 2004). In 1958[38] a further policy shift was announced; the integration of Chinese and Western medicine - *zhongxiyi jiehe* 中西医结合. Some argue that true integration can only be achieved when each medicine is answerable to its own standards and should always result in a dual system (Fan & Holliday, 2007). However, Mao Zedong's 毛泽东 vision was to take the best of each to form a new scientific medicine. The bias towards science and biomedicine was clear in the way that this was to be achieved; the policy commenced with biomedical doctors being sent to train in Chinese medicine rather than vice versa. The term integrated medicine found in the survey, discussed above, reflects the continuing existence of such policies in modern China. However, I argue throughout this thesis that most institutionalised Chinese medicine in China, whether it is called integrated medicine or Chinese medicine, is primarily integrated medicine as it does not exist without both actively and passively adopting biomedical practices and influences.

Some view the introduction of scientific laboratory experimental techniques, which were introduced into Chinese medicine research in 1959, as the start of the biomedicalisation of Chinese medicine (Tiquia, 2008). However, this is based on a rather fixed and narrow view of what constitutes biomedicine, which itself has been show to exist in multiplicity (Mol, 2002). In 1960 this type of research became renowned when Kuang Ankun 邝安坤 fed excessive doses of adrenal cortex hormones to rats and observed that this induced symptoms of the Chinese medicine syndrome of *yang* deficiency - *yangxu* 阳虚. *Yang* deficiency comprises a group of symptoms which may include low body temperature, diarrhea and tiredness. Kuang Ankun subsequently found that certain Chinese herbs including aconite - *fu z*i 附子, cinnamon - *rou gui* 肉桂, cistanche - *rou cong rong* 淡苁蓉 and epimedium -

38 This was the year that the term Traditional Chinese Medicine (TCM) was introduced in English language publications in China purported to be in order to capitalise on Westerners interests in traditional medicines, for detailed discussion of this period see TAYLOR, K. 2004, "Divergent Interests and Cultivated Misunderstandings: The Influence of the West on Modern Chinese Medicine", Social History of Medicine, vol. 17, no. 1, pp. 93-111 and Taylor, K. 2005, Chinese Medicine in Early Communist China, 1945-63 Routledge Curzon, New York.

xian ling pi 仙灵脾 could treat this condition (Kun, 1963). Such research techniques began a continuing tradition of studying Chinese medicine through experimenting on animals, whereby (usually) rats are reared to exhibit a particular pathology and then Chinese herbs are used to treat them. Currently large numbers of Chinese doctoral students still use such animal models to research the effects of Chinese herbs.

2.4(iv) The Cultural Revolution

The Cultural Revolution has been described as 'a violent intrusion of the state into the scientific community.' (Fan, 2007, p10). Post Mao, the Cultural Revolution is generally referred to as Mao's big mistake; people I met in China, during fieldwork, often explained that Mao was revered for the ninety percent that he did right rather than the ten percent that he did wrong, whereas, in the West, Mao is often depicted by the ten percent. During that period universities and scientific institutes were closed and intellectuals punished for being bourgeois. Many scientists and students were sent to the countryside for re-education by peasants. However, during the Maoist era such policies were presented as a total success. Looking back there were in fact innovations. For example, ninety four papers documenting scientific advances, during that period, have been identified in the fields of science and technology, agriculture, defence and industry (Brock, 2009).

Science took on a new socialist meaning with the promotion of mass science, also known as citizen science, as part of China's science policy, particularly during the early years of the Cultural Revolution. Mass science denotes:

> 'The research and development activities carried out by the peasants and workers in areas which are related to the production of goods and services.' (Hsu, 1979, p27)

As well as promoting self reliance this policy was a political tool to place the proletariat above bourgeois scientists (ibid). It served to popularise science and by 1978 it is estimated that there were ‘fourteen million people, in the countryside alone, involved in mass science projects.’ (Suttmeier, 1980, p47). During this period China saw the emergence of large numbers of barefoot doctors and the removal of Chinese medicine from universities which were, with all other universities, closed down. Doctors instead were sent to learn ‘on the job’ in hospitals (Cheng, 2008). This effect can be viewed as a time of new possibilities for Chinese medicine, turning away from state organised standardised course materials to learning through apprenticeships. However, through the brief training of barefoot doctors, Chinese medicine’s knowledge became available to more than a professional elite; exactly the intended purpose for Mao whose cultural revolution sought empowerment of the proletariat. Nevertheless, this legacy makes contemporary Chinese medicine more prone to the obvious use of scientific rhetoric (as seen in the survey paper) than seen in biomedical research. Thus, the mass science movement of Mao continues to manifest.

Mass science, despite producing some innovations, became an ideological dogma, whereby politics set the agenda for science. Following Mao’s death and the fall of his close associates, the Gang of Four, the government shifted away from this concept to emphasise modern science. However, even today in China, science can be used to describe everyday activities, such as saying that one is doing ones hair scientifically. Remnants of citizen science are seen in taxis throughout China which list ways of being a good citizen, including being scientific in everything that one does (Scheid, 2008a). The legacy of the Maoist mass science movement contributed to making the boundaries of science extremely fuzzy, at the very least it blurred the language of scientific discourse providing a stark example of science taking on different meanings in different contexts. Science thus is dependent on its audience, rather than being a universal standard.

2.4(v) The Opening up of China & Post Mao

Following a period of total closure to the outside world, during planning for the visit of Richard Nixon in 1972, Chinese medicine needed and had the opportunity to assert its standing on the international scientific stage, as it had done in the Republican Era when Chinese medicine doctors first acknowledged the need to modernise. In 1971, a Western journalist visiting China, received acupuncture successfully for analgesia for an acute appendectomy. It has been proposed that his subsequent article, in the Western press recounting the event, was a key moment for China to show to the world that Chinese medicine was indeed a science (Hsu, 1996).

The changing face of acupuncture anaesthesia provides an interesting example of forces; social, political and historical which shape Chinese medicine. Acupuncture anaesthesia is itself the product of scientisation, however, rather than being the prime promoting tool for Chinese medicine in the global arena, as it was in the 1970's, instead it is today marginal to universal bioscience (Zhan, 2001).

Evident from the above, in China, science as well as Chinese medicine has been (and is) a political tool. The Chinese government's recent suppression of the *Falun Gong* 法轮功[39] movement provides another example of the dangers of being viewed as unscientific. In 1999 He Zuoxiu 何祚庥, the brother-in-law of the public security bureau chief Luo Gan 罗干, a leading scientist spoke out, on behalf of the government against this movement, denouncing *Falun Gong* as a cult and of being anti-scientific (Chen, 2000). Earlier tactics used to denounce it included calling it pseudo-science and superstition. Whilst this crackdown is undoubtedly against a sectarian group with organizational powers, since such groups have historically threatened the ruling powers of China,[40] as opposed to the actual practice of a form of

39 *Falun Gong* is a branch of *qi gong* - a type of Chinese medical exercise.

40 Resistance movements have included the White Lotus rebels, the Yellow Turbans and the Boxers.

qigong, it is the language used to denounce it that is of interest; to not be scientific is reprehensible. This is as science is aligned to possibilities of control and governmentality. Considering that in China today there are many people in living memory of the Cultural Revolution, where to disobey the party line could result in death, any stance seen as anti-government is naturally feared. This can be read as any activity seen as being non-scientific is to be feared. Hence science acts as a tool of oppression, with knowledge production intertwined with the mechanisms of power.

From this brief review, it is evident why science in China has been likened to scientism (Karchmer, 2010), a term that is used derogatorily, by some, to describe an aberration of science (Popper, 1972). Scientism believes in the omnipotence of science, as if science holds all the answers to all questions. However, science is not impervious to who is doing the science, or where and for whom. In the survey paper that is discussed in this chapter, the authors provide an account that is idealised for communist party bureaucrats, it is not written for an international scientific audience. The writing fails to take into account Western peer review criteria for what constitutes a valid and reliable survey, instead there are memories from the mass science campaign carried forward; reflected in the scale of the survey and the almost total agreement between participants. It has not shaken off the need to be seen to be modern, scientific and biomedicalised, as Chinese medicine has strived for over the last hundred years.

2.5 Chinese Medicine Research and Scientific Rhetoric

As well as considering the special role of science in China, considering the role of rhetoric in science provides a different reading of the survey paper. Foucault (1980) was interested in looking at the political status and ideological function of science. He suggested that the relations between a science such as organic chemistry with its strong ‘scientific armature’ (ibid, p109) and political and economic structures are excessively complicated. For this reason he chose psychiatry, which was considered a dubious science, to

illustrate the links between power and knowledge. Similarly Chinese medicine as contested knowledge can expose the power / knowledge relationship that nevertheless also exists in biomedical research but which, in a way similar to organic chemistry, is concealed by its scientific armature.

Part of the way Chinese medicine legitimates its knowledge is to selectively portray and place itself within the scientific domain. The survey research provides an especially illuminating example of such scientific accounting procedures[41] for five main reasons:

- Chinese medicine has a credibility and legitimacy problem
- The boundaries of certain Chinese medicine practices are highly porous
- Chinese medicine aligning itself with an evolutionary scientific perspective negates its own past
- There is dissent within Chinese medicine
- Chinese medicine uses poetic language

2.5(i) The Credibility and Legitimacy Problem

The historical introduction, above, outlined the dangers of a practice being viewed as unscientific in a particular context. Thus, Chinese medicine unlike biomedicine, which is unquestionably equated with science, has a credibility problem (Normile, 2003; Liu & Lederman, 2002; Sade, 2003). In response, Chinese medicine deliberately emphasises its scientific nature. An example is the Research Academy of Traditional Chinese Medicine - *Zhongyi yanjiu yuan* 中医研究院 which in 2005 after fifty years was renamed as the China Academy of Chinese Medical Sciences (CACMS) *Zhongguo zhongyi kexue yuan* 中国中医科学院. There is no doubt that adding the word science to its title is an attempt to add authority.

41 Similar themes have been discussed in relation to social science research which lacks credibility in the eyes of natural scientists. See KITZINGER, C. 1987, The Social Construction of Lesbianism Sage, London.

2.5(ii) The Boundary Problem

Aspects of Chinese medicine are discussed and / or practised by the general public well outside the domain of a specialist academic scientific elite, it is therefore at risk of being tainted with the discourse of non-scientific debates. Such a situation reduces a profession's ability to exclude lay people through language. This is in contrast to biomedicine's use of Latin and Greek terms, rendering the elite status of the profession unquestioned. For example, the concept of *qi* is at times also intertwined with religious debates (Carter, 2003). However, since religion is seen as incompatible with the pursuit of 'real' scientific knowledge, Chinese medicine has a task to define its own knowledge as distinct from religious knowledge and superior to that of lay people.

The overlap between diet and medicine results in a part of the discourse of lay people overlapping with that of Chinese medicine. To counter this Chinese medicine uses the rhetorical ploy labelled mythologising of expertise (Halmos, 1978) to assert the supremacy of scientific concepts over other knowledge associated with pseudo-science, myths, legends and knowledge of lay. Of course, this ploy is familiar, the previous chapter outlines how scientists use it to distance scientific knowledge from that of Chinese medicine (Nancy, et al., 2003). This practice seeks to discredit popular understandings about Chinese medicine suggesting that only experts know the real truth. The experts are by definition those also applying biomedical knowledge. This was voiced to me, again and again, by Chinese doctors in China. For example, one doctor considering how a biomedical diagnosis influences a Chinese medicine prescription stated:

> 'Pure Chinese medicine doctors they don't change the prescription anyway.'

The implication of this statement is that he and other modern Chinese medicine doctors, who are trained in universities and who also know biomedicine:

> ‘Would definitely change the prescription and give more suggestions.’

Here the ‘pure’ Chinese medicine doctors are seen as uneducated, old doctors associated with not knowing the real truth of the situation. Hence, their knowledge, like that of lay people is considered incomplete and to be distanced from that of ‘true, modern’ Chinese medicine.

2.5(iii) The Problematic Past

The third reason that Chinese medicine illustrates scientific rhetorical ploys, is because some Chinese medicine practices are viewed sceptically and are considered unscientific. These are rationalised through adopting an evolutionary scientific approach to progress whereby such ‘erroneous’ practices are replaced by what is known to be true now, the tongue study discussed earlier is one of many such examples. All seek legitimisation through conforming to modern scientific standards, applying an evolutionary perspective on the progress of Chinese medicine, rendering the ‘as well as thinking,’ described by Unschuld, (1986) as mistaken. The survey also applies this perspective; in the introduction the authors point out the shortcomings of previous inferior surveys.

A clear example of negating Chinese medicine’s past is seen in the textbooks produced for the post communist institutionalised Chinese medicine. Any references to esoteric practices are simply erased. With every new edition, more biomedical terms are introduced and the biomedical research section gets larger (Scheid, 2002a).

2.5(iv) The Dissent Problem

The fourth reason, is that within Chinese medicine there is controversy over defining Chinese medicine. As seen in the former example of who would change a prescription and who wouldn't. Whereas science is typified by unquestioned principles that determine what questions can be asked. Chinese medicine is therefore at risk of being seen as unscientific due to this dissent within its borders. Some Chinese medicine doctors respond to this situation by reinforcing their allegiance with science and dismissing those parts that don't conform to such standards.

This scientisation of Chinese medicine continues today through the use of scientific methods to research Chinese medicine, as with laboratory animal studies. One doctor in Beijing emphasised:

> 'Definitely there is something good in the Chinese medicine and of course something not so good anyway, so we have to find something good.'

The removal of dissent is also seen in research papers which repeatedly arrive at astonishingly high outcomes such as ninety three percent agreed. This can partly be seen to conform to the ideological demands of the Chinese Communist Party, as discussed earlier. There are no doubt also cultural issues also at play associated with 'losing face'. This term is discussed later in the analysis section. Briefly, it refers to one's social obligations to colleagues and those in one's social network.

2.5(v) The Language Problem

Fifthly, the language used in Chinese medicine can be described as poetic. Terms used to describe the pulse include, for example, slippery - *hua* 滑, recognised by the description, 'like pearls rolling in a porcelain bowl', or

choppy - *se* 涩, described as, 'a sick silkworm eating a mulberry leaf.' In contrast, scientific language is objective; scientific reports customarily use the third person; it is quantitative rather than qualitative. Chinese medicine research, as seen in the survey, attempts to mimic this; relying on large amounts of figures, even when these make little sense. Such a strategy seeks to present the research as objective facts, steering clear of qualitative language. However, it fails to follow the rules prescribed by peer review for good science. This results in Chinese medicine being ridiculed by that audience.

What are the implications of this? Use of scientific rhetoric, whatever the motives, actually serves to reinforce the dominant power relationships between biomedicine and Chinese medicine. For it perpetuates the view that only science is the holder of valid knowledge, implying that Chinese medicine is on catch up.

2.6 Events in China Impacting on Chinese Medicine in the UK

Political events in China have impacted on contemporary Chinese medicine in the UK. Following Mao's death and the rise of Deng Xiaoping 邓小平 the policy of economic reform and openness - *gaige kaifang* 改革开放, first put forward in 1979, created the beginnings of a Chinese Socialist Capitalism. This policy continues and has resulted in the rapid economic growth of China which is evident today. It has provided the opportunity for Chinese medicine doctors to travel to the UK to work. Such doctors face a very different context to work in from that in China. For example, in China these doctors have largely been working in state funded hospitals where they could prescribe biomedical drugs as well as Chinese herbal medicine. However, in the UK such a practise is illegal since only biomedical doctors can prescribe such drugs. Furthermore, the herbal medicine products available in the UK is restricted to plant materials whereas in China the definition of herb – *yao* 药 includes minerals and animal products. Thus, the practice of Chinese

medicine of newly arriving doctors inevitably dramatically changes to accommodate such different circumstances. This can be considered an opportunity for the creative emergence of new practices of Chinese medicine (Lei, 1999) rather than a curtailing of best practice through such legal restrictions.

The movement of Chinese medicine doctors to the UK from China was further fuelled by the influx of Chinese business people prior to the handing back of sovereignty of Hong Kong to the People's Republic of China in 1997. There was a rapid rise, at this time, of high street Chinese herbal shops, run by such business people and staffed by Chinese doctors from mainland China tied by their work visas to their employees for a minimum of five years. Some of whom, on completion of their terms of contract returned to China, yet many also stayed and continued to practise opening their own shops. Others found work within University and college settings teaching Chinese medicine. Thus, they directly influenced the practice of Chinese medicine practitioners in training in the UK.

At the same time, the opening up of China provided the opportunity for foreigners to travel to China and study Chinese medicine. Courses were set up in various institutions to accommodate such people, taught in English usually for short periods of time. However, Chinese medicine in the UK has a history of being influenced by a few Westerners who have learned the Chinese language and promote their understanding of Chinese medicine to a large audience of Westerners hoping to learn the 'real' Chinese medicine. This is encouraged by such teachers who put forward their understanding as the authentic version of Chinese medicine. One example is the 5 element school of acupuncture founded by J.R. Worsley. Worley travelled to East Asia in the 1950's and set up schools on his return to the UK. His teaching became popular in the 1970's, which can be seen as part of the counter-culture movement of the time. Another influential person, through the rewriting of Chinese medicine institutional textbooks for a Western market, is

G. Maciocia, he has thereby promoted a particular form of Chinese medicine which in the UK is often viewed as quite different to Worsley's 5 element style and is closely bound with Chinese medicine as taught in Chinese universities, though not necessarily with how it is practised there.

Prior to the opening up of China the Chinese community in the UK were largely from Hong Kong and Canton. They included Chinese medicine doctors, however, this community remains very tightly bound and such doctors largely serve that local Chinese community and thus bear little influence on the transmission of Chinese medicine in the UK.

In China today Chinese medicine doctors can practice privately. A few, largely through grasping the English language, have become influential in training small numbers of UK practitioners. One such person, Wu Boping 吴伯平, has taught several practitioners who then themselves have become influential educators in the UK. Such a situation is in part responsible for the current popularity of studying classical texts such as the *Shang Han Lun* 伤寒论。

This brief glimpse at the influences on Chinese medicine in the UK serves to illustrate that it is influenced by events in China and moulded by its local context and is therefore always in transition.

2.7 Conclusion

Chinese medicine research in China illustrates the context bound nature of science. Furthermore, it illuminates the role of rhetoric in science. It is also apparent that Chinese medicine is still seeking state support through scientisation (Karchmer, 2005). It is not a surprising observation that:

> ‘The ongoing scientization process has shown that the ultimate meaning of science for Chinese medicine thinkers and practitioners remains undetermined.’ (Lai, 2004, p24). (Following Lai’s preferred spelling).

However, this implies that there is one single meaning of science, whereas the undetermined meaning can be interpreted as being closer to the actual practices of science. What is evident is that the word science has enormous power and meaning in China that has a different emphasis, use and understanding of the word than found in the UK.

It is necessary to place the survey in its sociological and cultural context and the peer review criteria in theirs. The tabulated critique highlights the field of peer review as one of extended negotiations over knowledge claims (Harris, 2004). Revisiting the paper and Chinese medicine research in general, it can be interpreted as, rather than a misunderstanding of scientific rigor, more of an acceptance that scientific research, whilst claiming to find out truths, is never a neutral political or social activity. That it emerges within a particular context, is mobilised for particular purposes and influences future practices and institutions. Implicit in this stance is an acceptance of the impossibility of true objectivity. The active use of scientific rhetoric gives credence and respectability to the research that assist it in achieving its aim. The aim, far from being as stated in the paper, is actually to secure further funding for Chinese medicine research (Lü, 2006). The use here of an apparently deliberate rhetorical strategy requires an audience to be in mind; the audience being, Chinese government officials, rather than Western scientists which allows for the skilled use of rhetorical ploys to take precedence over method. Whilst the peer review criteria provides an example of scientific rhetoric itself.

In the West the use of rhetoric in science has been characterised as a source of error (Adams, 1991). This is based on a long tradition running from Bacon and Descartes up to members of the Vienna Circle. It assumes that true knowledge is obtained by applying scientific method, which historically has taken different forms, but which is a technique to question nature that is assumed independent from the observer (Montuschi, 1994). However, in the field of science studies there is a redefining of the role of rhetoric in science; one in which rhetoric plays an integral part that can be positive. For example, Gross (1990) puts forward an argument for the legitimisation of rhetorical approaches to science. Others suggest that 'clearly, rhetoric has always played a crucial role in scientific writing.' (Lamm, 1994, p89). Furthermore, the inescapability of rhetoric is illustrated through a close reading of Charles Darwin's work, where metaphor and other rhetorical ploys are provided as tools to assist the reader in being open to the ideas proposed (Kitcher, 1991) which were ground breaking at that time. In Chen and Lü's (2006) paper the deliberate rhetorical strategy can be viewed as cleverly tailoring their writing to the precise audience, those whom wield power over Chinese medicine's future. By couching the survey in scientific language and results showing a high degree of agreement it adheres to Chinese Communist Party ideals and as such they would be more receptive to it.

2.8 Summary

Science when viewed as a general category can encompass a range of practices, assimilate various knowledge traditions and be institutionalised in a variety of ways (Fan, 2007). The survey paper can thus be viewed as science in action relevant to local conditions. The historical rivalry between Chinese medicine and biomedicine in China inevitably influences Chinese medicine's portrayal of itself. The survey paper is answerable to calls for modernisation, Westernisation - *xi hua* 西化, scientisation and biomedicalisation - *xiyi hua* 西医化 (Tiquia, 2008). When reading any research paper, rather than critiquing according to a peer review established list of standards (that has its own context) it is necessary to ask, who is

representing Chinese medicine in this guise, to whom, for what purposes and in which context. The meaning and practice of both science and Chinese medicine is never a fixed category:

> ‘Despite the hegemonic discourse of global science, Chinese medical practitioners’ articulations with the concept of science have been heterogeneous, both now and in the past.’ (Lai, 2010, p37).

The idea of Chinese medicine as a coherent unified body of knowledge arose during the Republican Era in response to threats from biomedicine (Unschuld, 1985). It persists today, despite being shown to be far from accurate (Hsu, 1999; Scheid, 2002a). In this thesis in order to describe the range of diversity of practices it is clearly necessary to seek out minority practices as well as dominant ones; it is necessary to present Chinese medicine rather than represent it in clichéd forms. What other voices will be heard by the completion of the study may well expose whether the ‘Trojan horses of objectivity and systematicity’ (Scheid, 2002a, p26) have indelibly coloured Chinese medicine practice. There is the fear that accepting the epistemology of biomedicine will lead to the assimilation of Chinese medicine with Chinese medicine being a mere source of techniques[42] and a treasure house of undiscovered biomedical drugs. Zhang Xichun’s 张锡纯 arguments during the Republican Era, against replacing Chinese medicine with Euro-American practices, suggesting instead that Western medicine should be incorporated into the existing Chinese medical epistemology (Andrews, 1996), are rarely heard in China today. However, such views may still underlie practice of the minority. Therefore, it is necessary to utilise a method that will be capable of uncovering the rare as well as the common. The following two chapters describe the chosen method to achieve this aim.

42 As acupuncture by point prescription is for medically trained practitioners in the UK today.

Section Two: Appropriation of a Methodology and Method

Chapter Three: Q Methodology in Context

3.1 Introduction

This chapter serves to introduce Q methodology (Q), as both a methodology and a method. The distinction between these are that the former includes the theoretical assumptions that inform the latter. It places Q in relation to other philosophical frameworks, particularly Foucauldian discourse analysis and outlines my own use of it, in the context of debated issues surrounding Q. I have already argued that an appropriate method for mapping out the diversity of Chinese medicine practice needs to be able to uncover both rare as well as common views. Q is a tool that is particularly suited for this; it is noted for its ability to go beyond the majority view to reveal unheard voices. Engaging in the details of Q here will show the aptness of this lesser known method over other choices.

This chapter is broadly divided into two parts; Q as Methodology and then my appropriation of Q. Part one commences first, with an outline of the process of undertaking a Q study which as a method is basically a rank ordering task. This allows for the arguments regarding Q as a methodology to flow. Second, a brief introduction to Q and Stephenson, its originator, is provided. Third, Q is placed within the realm of other qualitative methods. To illustrate its philosophical basis, the resonance with Foucauldian discourse analysis and science and technology studies is explored. This serves to establish Q as a framework from which to undertake research beyond being the method. Foucault, like Stephenson, doesn't easily fit into any one camp. Foucault has been labelled a structuralist, post-structuralist and post-modernist. Likewise his methods have been misunderstood and it is argued that Foucault's work is often used simply to legitimate studies without comprehension of his method (Soyland & Kendall, 1997). Therefore, both Stephenson and Foucault share a history of misuse of their ideas, comparing them here will clarify the assumptions on which Q is based.

Part two examines the substantial theoretical and epistemological debate surrounding this lesser known method. In outlining the debate I clarify my position within it, including the choices available at each stage of running such a study.

Furthermore, for those unfamiliar with Q, this chapter provides a broad introduction to the field. This is particularly necessary since this is the first use of this method in the field of Chinese medicine. Such an approach saves readers resorting to other texts to follow the arguments and stages of this study.[43] In addition, introducing the vocabulary used in Q allows for comprehension of the method chapter that follows.

3.2 Part One – Q as Methodology

3.2(i) The Process of Doing a Q Study

The process of doing a Q study involves the following steps; define the topic; gather communication on the topic; identify themes in that communication; pick representative statements within each theme; purposively choose participants; participants sort (rank order) the statements; the sorts are correlated; patterns are identified through factor analysis and finally these patterns (of statements), using the statements themselves are analysed. Each of these steps involves debate as to how each is carried out. Therefore, these are discussed below.

3.2(ii) Origins of Q

To establish the background of the method it is necessary to look at its origins. Stephenson (1935), with PhDs in both psychology and physics, laid the foundations for Q in the 1930's. Psychology was dominated at that time by behaviourism. From this context and influenced by quantum physics

43 Major 'handbooks' are BROWN, S. R. 1980. Political Subjectivity: Applications of Q Methodology in Political Science, Yale University Press and STEPHENSON, W. 1953. The study of behaviour: Q-technique and its methodology, Chicago, University of Chicago press.

Stephenson's constructionist opinions arose. He conjectured that the real world, not just our perceptions of it, is uniquely known to each person. Nevertheless, each subjective schema, how one perceives and acts, is inter-subjectively shared. From such a perspective, inter-subjectivity is the basis of reality and Q was designed to explore this inter-subjectivity.

Stephenson aimed to provide a methodology that would meet the need to establish facts in social science and psychology. Q offered a new way to study behaviour; Stephenson viewed communication as behaviour. He defined Q as a set of statistical, philosophy of science and psychological principles (Stephenson, 1953b). That is, whilst Q denotes a method it is also a methodology, providing a broad framework and philosophy from which to approach research. Stephenson emphasised that only with the proper methodological principles can problems be solved and brought into the scientific field (Ibid).

3.2(iii) Q in the Wider Context of Qualitative Research

Q is intended to explore contested topics, where there is no right or wrong factual answer, since it has the ability to give voice to minority as well as dominant views. It thus aligns with what is generally considered to be qualitative research. The question arises of how does it link with other methods which could be applied to exploring the heterogeneity of medical practice; that is, is Q the right tool for the task?

3.2(iv) Categorising Qualitative Research

Qualitative research is an umbrella term for a diverse range of research approaches, each making particular assumptions about a topic, with differences in terms of methodological, epistemological and theoretical allegiances. Silverman (2001) argues that it is necessary to define qualitative research in a way that goes beyond the negative statement of it not being quantitative. Silverman suggests that the following need to be made explicit:

model, concepts, theory, hypothesis, methodology and method. Qualitative research starts with a chosen framework, or paradigm, for looking at reality, such as constructionism, behaviourism or positivism. Each framework offers concepts that are essential in defining a research problem. For example, when employing a behaviourism framework, the concept of stimulus – response, may elicit questions such as how do participants respond to x stimulus. The concepts used within any framework are then arranged to define and explain phenomena through theory. Theories provide tools for critically understanding observed events as well as for considering what is unknown. Theory is different from a hypothesis; theory is untestable but is judged by its usefulness. The choice of methodology determines how the researcher goes about studying any phenomenon. Finally, a method is chosen that is a specific technique that fits the model, theory and methodology. Qualitative methods present statements about reality and social life that have to be continually argued and reaffirmed (Holliday, 2002). Q is one such method that creates a snapshot of a debate in time. However, it can also be used to assess changes over time through repeating the same Q study at different times.

Qualitative research methodologies have been categorised and linked in various ways, such as:

- Ethnographical, first person reports and interactional research (Fischer, 2006)
- Big qualitative, little qualitative and blurred genres (Mertens, 1998)[44]
- Discursive, thematic, structured, composite and collaborative (Gough & Madill, 2007)

Clearly there are a wide range of approaches, which can be classified in a variety of ways. Reminding us that classifications are simply frameworks that allow certain ‘facts’ to arise. Q’s framework resonates with aspects of the

44 Note that Mertens actually calls these big Q and little q, but they have been written in full here to avoid confusion with Q methodology.

Kantian (2007) idea of limits of reason and Bourdieu's (2002) concept that thes are set at the social level. That is, Kant stated that what can be known must be set out before hand by the *a priori* perceptions of the subject. The pertinence of this idea to Q will become evident throughout this section, whilst Bourdieu added that the conditions of possibility for knowing are located at the position of society. In Q subjectivity is seen to be conditioned by the social, but what that social is, is not predefined by Q; it emerges from the Q sorting process.

To clarify, Q allows many different classificatory systems to emerge for what they are – constraints on what can be known; this is the data that is analysed. Furthermore, these can be compared or contrasted as they are all homogenous in belonging to one topic or subject area, which here is the practice of Chinese medicine. It is therefore suitable for exploring diversity.

3.2(v) Q, Foucault and Dissolving Dichotomies

Comparing Q with Foucauldian discourse analysis reveals some interesting shared viewpoints and illuminates the thinking behind Q in more familiar language. Discourse analysis itself is a broad field, within which there are many different definitions of discourse. Discourse analysis has been described as:

> 'A heterogeneous range of social science research methods based on the analysis of interview and texts as well as recorded talk.'
> (Silverman, 2001, p177).

They stem from the observation that words perform actions (Austin, 1979). However, the term 'discourse' needs clarification, for as Kendall & Wickham (1999) warn, there is the danger of discourse to mean anything to different

people. Discourse for Foucault is not simply language, hence the need to distinguish it within the field of discourse analysis as a distinct approach.

In Foucauldian discourse analysis, discourse is a system of representation. It attempts to overcome the traditional distinction over what one says and what one does. Explanations of this approach are woven into the sections that follow which will illuminate both Stephenson's thinking and Foucault's particular use of discourse.

3.2(vi) Q: More Than a Cognitive Exercise

Stephenson (1953b) argues that his method overcomes the distinction between saying and doing; Q methodology should not to be mistaken for a purely cognitive exercise. One of the psychological principles at the heart of the method is that what is subjective, such as thinking and the actions that may be observed by that thinker are not distinguishable. That is they are both interactions with a particular situation. Both are behaviours. This is in keeping with the later Wittgenstein's (1958) idea that 'the human body is the best picture of the human soul' (p178), meaning that 'mind' in an existential sense is an illusion. Hence, all that can be studied is behaviour. Q methodology thus incorporates the internal frame of reference, subjectivity, which is also behaviour, or interaction with the situation. Beliefs and opinions are all therefore behaviour in this framework. Thus there is a breaking down of the Cartesian mind body split. Furthermore, from a constructionist, rather than an essentialist or positivist stance, any account of behaviour is of interest in that it provides insight into the society in which that account is plausible; either as the truth or a lie (Collins, 1983). Thus when initially gathering opinions on a topic; here how biomedicine influences Chinese medicine practice, it is of no concern if respondents give what they consider is a 'good' or 'correct' answer. For that answer nevertheless provides information of the Chinese medicine culture in which they operate. The research aims to explore a contested subject in which there are no 'correct' answers but many equally valid ones.

3.2(vii) Discourse Meets Praxis

From Stephenson's perspective, viewpoints are not then purely cognitive but are also behaviour. Viewing them as distinct assumes that there is a distinction between discourse and praxis. Woolgar (1986) has explained how such a view may arise; when discourse is understood from an Anglo-Saxon realist epistemological position, the two remain distinct. From such a stance discourse is a label for empirically observable linguistic activities only. Such a distinction breaks down when the term discourse is understood from Foucault's position, which links discourse to objects, machines and circumstances through discourse being productive. Hence entities can be treated as texts in that they may also exhibit a discourse. A similar misunderstanding is seen in the suggestion that a limitation of Foucault's work, (based on analyses of writings), is that what these writings say about practices may be misleading (Gomm, 2004). This assumes that Foucault's conclusions are only valid in relation to the text and not practice. However, it seems to me that Gomm is not encompassing Foucault's use of the term discourse and falls into the 'Anglo-Saxon' trap, as evidenced by his statement:

> 'The term discourse analysis is sometimes used for something very similar to conversational analysis, though with roots more firmly grounded in linguistics……..Sometimes [here he refers to Foucault's use of the term] however, the term 'discourse' is used as a modern synonym for what would previously have been called 'ideology.' (Gomm, 2004, pp214-215).

For Foucault discourse is neither solely language nor an ideology, it is productive. It has been suggested that Foucault tactically uses discourse to distinguish it from ideas (Cousins & Hussain, 1984). However, such a view is again predicated on a Cartesian mind body split. Moreover, Foucault would not have agreed with Gomm as is patent from the following interview abstract:

> ‘The notion of ideology appears to me to be difficult to make use of, for three reasons. The first is that, like it or not, it always stands in virtual opposition to something else which is supposed to count as truth. …… The second drawback is that the concept of ideology refers, I think necessarily, to something of the order of a subject. Third, ideology stands in a secondary position relative to something which functions as its infrastructure, as its material, economic determinant, etc. For these three reasons, I think that this is a notion that cannot be used without circumspection (Rabinow, 1984, p60).

Clearly for Foucault discourse is not intended to represent ideology. Mills (2004) points out:

> ‘Foucault at various times openly acknowledged his debt to Marxist thought and at the same time also sought clearly to distinguish and distance his work from Marxist thinking.’ (p27).

He clearly did not want to rely on ideology, Marxist ideology or otherwise, suggesting that Gomm’s reading of Foucault is at odds with his intentions.

For Foucault (1989) ‘practices leave verbal traces.’ (p14). His work sought to define the different relationships between different domains. This, as will become evident in this chapter is also what Stephenson aspires to achieve with Q. Foucualt (ibid) in interview stated:

> ‘There is no reason for describing this autonomous layer of discourse except to the extent that one can relate it to other layers, practices, institutions, social and political relations, etc.’(p23).

Thus the non-discursive does not exist in a completely non-discursive realm.

3.2(viii) Discourse as a Problematic Term

It has even been suggested that the use of the term discourse is a major weakness in Foucault's archaeology of knowledge as it has led him to be misunderstood (Hunter, 1989). I tend to agree with this opinion. Similarly Stephenson's Q has been misunderstood as simply a factor analytic technique due to its use of statistics, rather than as a methodology encompassing a philosophical framework. Whilst Foucault looked at historical texts, it was through these that he sought to locate the rules of constructing knowledge, in activities, procedures, buildings, instruments, events as all these leave verbal traces. Contrast this with Potter and Wetherell's (1987) discourse analysis which emphasises discourse as texts and talk in social practice, with the emphasis on language as a medium of communication. Hence this discourse analysis is about 'what people do with language in local contexts.' (ibid, p146).

Woolgar (1986) suggests that the misunderstanding of the significance of the term discourse, due to an Anglicising of the continental term, arises due to opposing epistemological commitments; of either a constitutive argument (congruence between discourse and praxis) or a realist epistemology (distinction between discourse and praxis). Whilst the constitutive view does not prohibit distinctions between a thing and what is said about it, it nevertheless offers a way of seeing these distinctions as actively created achievements rather than as pre-given features of our world.

3.2(ix) Archaeology and Genealogy

Misunderstanding of Q often arises through seeing factor analysis as the focus separate from the philosophical basis. Similar breaking up of Foucault's method has done the same. I agree with Hook (2005) in seeing Foucault's method as a mode of critique better able to encompass aspects of

discourse such as history, materiality, the conditions of possibility underwriting ‘knowledge’, than methods of discourse analysis that focus just on texts. However, I disagree that this is limited to his genealogy. Both methods deal with knowledge and culture. Archaeology looks at how things are organised, the similarities and differences that produce knowledge. Whereas, genealogy, also accounts for power and processes that determine truth. Other authors have suggested that these two methods be kept together, since Foucault himself also saw them as complementary (Kendall and Wickham, 1999). Indeed, Foucault (1983) himself clearly stated that he never stopped doing either, they just served different purposes.

The purpose of Foucault’s genealogy, a kind of critical historical analysis, is to question the present. It takes a concept, such as madness and asks how it appeared as different things at different times. Linking how knowledge, discourse and power are constituted through practices, social institutions and government:

> ‘Without having to make reference to a subject which is either transcendental in relation to the field of events or runs in its empty sameness throughout history.’ (Foucault, 1980, p149).

It documents the social change of a concept. Each change being linked to a cause for the change that allows for a redefinition. Thus, it serves as a way of viewing the present that allows for further social change through questioning the familiar and accepted.

Archaeology defines the field on which to do a genealogy. It describes what statements survive, disappear or re-emerge. Since only the discourse of the powerful become the accepted linear history, it is important in looking at

discourse to consider what is excluded as valid knowledge. It is an excavating of the past to look at the fragments.

Foucault clarifies the aims of his approach in the statement:

> 'If we were to characterise it [Foucault's project] in two terms, then 'archaeology' would be the appropriate methodology of this analysis of local discursivities and 'genealogy' would be the tactics whereby, the subjected knowledges which were thus released would be brought into play.' (Foucault, 1980, p85).

Correlations can be made here with the various stages in a Q study. These stages are detailed in the following chapter. In brief, they consist of firstly gathering the communication surrounding a topic and selecting representative statements from it. They are the fragments available which can be likened to Foucault's method of archaeology. The second stage, where participants rank order these statements with subsequent factor analysis like genealogy allows the subjected knowledges to emerge, with each factor shaped by allegiances to differing social forces. Clearly however, Stephenson is not doing an historical analysis. It is the philosophical basis that resonates. A Q study can be thought of as asking how the different understandings of a topic appear as different things at the *same* time. In analysis the various Chinese medicines that emerge, rely on differing discourses, hold different powers with these constituted through the very practice of Chinese medicine, in different social institutions and governmental processes.

3.2(x) Beyond the Subject – Object Divide

I suggest that Foulcault's use of the term discourse points to what Mol (2002) has termed enact. She chose this term as it is not widely used and hence

resonates with fewer agendas that she is not concerned with. It thereby successfully escapes the burden of discussions that Foucault's discourse does not. Objects are enacted, meaning that realities / relations / representations of reality are endlessly being produced so these realities have no meaning outside the processes of this production and reproduction. Mol and others, in attempting to break down barriers between the natural and social, subject and object, choose to focus on ontology. Such studies and the often cited 'We have Never Been Modern' (Latour, 1993) should be included here, focus on practices to escape seeing cognitive explanations as separate from behaviour. Mol (2002) states:

> 'The ethnographic study of practices does not search for knowledge in subjects who have it in their minds and may talk about it. Instead, it locates knowledge primarily in activities, events, buildings, instruments, procedures and so on.' (p32).

Similarly, Latour (1987) attempting to depart from cognitive explanations called for the temporary postponement of cognitive explanations of science and technology. Both do not rule out such explanations, after all, Latour called for a moratorium not abandonment and Mol uses the term primarily. In so doing they acknowledge the interplay and many connections between discourse and praxis which are also fundamental to Q and which for Foucault are taken as given. As Foucault in interview (Martin et al., 1988) points out, people both act and think.

Hence, whilst objects may be enacted, what enacting occurs is also connected to cognition. Stephenson states that:

> 'It is clearly arbitrary in science to draw distinctions between what is objective and what is not.' (Stephenson, 1953b, p111).

‘Nor can subjectivity and objectivity be placed in opposition.’ (ibid, p116).

3.2(xi) Q Redefining Behaviour

Early behaviourists in psychology postulated that they deal with the real whilst others deal with the mind. Such a position contains a blatant opposition to cognition, supposing that there are internal and external frames that are mutually exclusive. Q in contrast belongs with those authors in the post-modern fields of science and technology studies and Foucauldian discourse analysis intent on dissolving dichotomous divisions of modernity.

Q creatively challenges the subject - object divide. Stephenson defines objective as meaning observable by others. One’s ‘inner’ experience whilst defined as subjective could be observed through Q technique, so there is no basis for the separation of inner and outer. Furthermore, Q is based on a comprehension that mind and body do not inhabit different realms and that therefore, all there is, is behaviour. Behaviour meaning here action, with the emphasis being that thought is action or behaviour, not in the sense that behaviourists view cognition as a separate realm.

3.2(xii) Inter-subjectivity

Stephenson aligned his thinking regarding subjectivity with the thoughts of (the later) Wittgenstein. Wittgenstein’s (1958) private language argument includes his concepts of public prior to private,[45] which Stephenson echoes in seeing subjectivity arising in the social context. Wittgenstein viewed language as woven into practice. That is, there are no deep hidden meanings; meaning is use and it is this concept that Stephenson applies in the Q sorting procedure, with meaning being given to the statements through

45 This is known as the private language argument. Wittgenstein however, warned of the trend of worship and overestimation of the value and power of science, which Stephenson seemingly did not echo, as he called Q, ‘the scientific study of subjectivity’. Nevertheless, he does place science in the realm of subjectivity rather than as objective facts.

their placement (or use) relative to other statements. Wittgenstein (ibid) also holds that an overview can be gained through looking at differences and how these are connected, which is the process undertaken in the analysis stage of Q.

I see Stephenson, Foucault, Latour and Mol as dissolving dichotomies such as; subject:object; epistemology:ontology; mind:body and discourse:praxis as their achieved starting assumption and on which their methods are based; Stephenson was clearly ahead of his time in this respect first introducing Q in 1935. This may partly explain why Q has been misunderstood, particularly its philosophical underpinnings. This assumption; the need to dissolve dichotomies, also underlies this research and will be illustrated throughout. Hence, what Stephenson refers to as subjectivity, is what today would be called inter-subjectivity.

3.2(xiii) Multiple Shared Subjectivities

Both Q and Foucauldian discourse analysis are exploratory techniques that can be applied to research questions that have many multifaceted and socially contested answers. Foucault challenges accepted linear historical accounts, thereby allowing him to question the present, whilst Stephenson's Q unravels hidden voices and can be applied to many fields. Q methodology aims to hear many voices (Cross 2005). In using individuals' subjective opinions to generate data, it is not the individual, or their 'real' opinion, that is of interest but the constructions themselves (Stainton Rogers, 1995). Similarly Foucault's genealogical recovery of subjugated voices does not aim to reveal the 'truth', but reveal how power and control work to influence what is seen (Hook, 2005).

Subjectivity is at the heart of both approaches. To reiterate, Stephenson (1953b) was interested in life as lived from the 'standpoint of the person living it.' (p561). Whilst he aimed to explore individual subjectivity, for him

subjectivity was forged in the socio-cultural context, contingent to the situation and not internally derived. Whilst for Foucault the question of the subject was also central in considering the objectification of the subject:

> 'I would like to say, first of all, what has been the goal of my work during the past twenty years. It has not been to analyse the phenomena of power, nor to elaborate the foundations of such an analysis. My objective, instead, has been to create a history of the different modes by which, in our culture, human beings are made subjects.' (Dreyfus et al., 2008, p218).

Foucault elaborates that the three modes of objectification are scientific modes of inquiry, pathology and linguistics. It seems to me that at the heart of Stephenson's method is the aim to also explore such objectification of human beings which transform them into subjects.

Foucault sees subjects as active in producing themselves, in the sense of being subjected to power (Kendall & Wickham, 1999) with subjectivity itself a product of discourse (Hodges, 2002). Stephenson comes to a similar conclusion, all be it influenced by a very different background of quantum physics. Stephenson first achieved a PhD in physics before going onto obtaining a PhD in psychology. Part two of this chapter expands on the quantum connection

3.2(xiv) Acknowledging Interpretation

Both Stephenson's Q methodology and Foucault's archaeology and genealogy seek to limit hermeneutics. Foucault achieves this through

maintaining scepticism,[46] Q through data emerging from subjects own sorting patterns rather than through the researcher imposing her own themes on the data. However, I see both as naïve in claiming to achieve this. Hence, I suggest that embracing the interpretive frame of the researcher, as both authors embrace the concept of diversity would allow for a more reflexive position. That is, critical reflexivity needs to be incorporated and the interpretive aspects of these methods acknowledged. For Q this is essential, particularly at the point of statement generation and choice of factors for interpretation. Nevertheless, as the researcher can also be a participant and hence her view can be placed in relation to all the others, Q thereby makes that observer's view explicit. In other words, Q also holds a built in valuable reflexive tool. Nevertheless, within the field of Q, others (Brown, 1980, Hogan, 2008) maintain, what I see as an idealistic view, that Q does indeed remove interpretation by the researcher.

I agree that it is the meaning and significance attributed to the statements by the sorters that are of interest. Nevertheless, I share the view on claims that Q methodology removes the researcher's bias as being naïve (Robbins & Krueger, 2000). Whilst it is said that Q is an interactive process driven by participants and hence is more democratic than most methods in analysing opinions (Dryzek & Berejikian, 1993). Nevertheless, the concourse does not exist exclusive of the researcher. Where one looks and what one expects to find constructs the concourse. Here I diverge from Stephenson's view that Q reveals subjectivity without distortion and hold that reflexivity is required to achieve validity.

Democracy can be defined in a variety of ways. However, I would suggest that Q is far from democratic in that it doesn't hold the majority view as more influential than minority views. Each can emerge through a Q study rather than the loudest drowning out others.

46 Foucault's scepticism is often referred to as pyrrhonism after the philosopher Pyrrho who lived in the 3rd Century B.C.E. who is accredited as the first sceptic philosopher.

3.2(xv) Ethnography and Q

The basic research question, how does biomedicine influence the practice of Chinese medicine, could be viewed as an ideal guiding question for anthropological participant observation fieldwork. Which, similar to Q, is usually theory driven in seeking explanations. Ethnography seeks to connect the local, micro site of fieldwork to larger, macro anthropological questions about how culture works. As such the researcher embeds themself within a cultural setting, such as in a hospital and observes while participating in the daily activities involved there. Through embedding an emic (insider's) view is aimed for, allowing for an understanding of the culture from the perspective of those living it. Ethnography has proven a reliable method to show that medical systems are comprised of diverse practices. Nevertheless, it is not specifically suited to describe the range of that diversity. Whereas Q, does not only seek to explain diversity, through the theoretical basis one chooses for analysis, but it specifically maps out that diversity. It explodes the apparent unity of practice, highlighting not that it is diverse, but the range of that diversity. In addition, it emphasises the connections and interfaces within the diversity.

3.2(xvi) Seeking Multiplicity

Whilst anthropological fieldwork has repeatedly been used to identify diversity and explain it, it has less often been used to explore the manifestations and connections that comprise this diversity. Nevertheless, Mol's work does do this, perhaps partly due to her emphasis on multiplicity rather than of plurality.

Plurality accepts co-existing realities that exist in different contexts without interference with each other as long as rules exist to organise their relationships and independence. Law (2004) argues that rather than there being a dichotomous choice of singularity or plurality an alternative option is realities with partial connections which provides for the possibility of multiple

realities through unpredictable overlap of practices that always interface and are in flux.

It seems to me that Q aware of such multiple realities allows for a snapshot of these different realities, including the silent ones and their many connections. It uncovers not diverse plural practices of Chinese medicine, but many intersecting Chinese medicines. Q has the possibility of revealing those lesser known practices that may then become the focus of ethnography. In other words it offers suggestions of where ethnographic research could subsequently proceed. Both methods mutually inhabit different domains. Furthermore, ethnography is always a story of a story. Whilst the ethnographer aims for an emic view, she is interpreting through her own lenses what is considered important or of interest. Q in contrast effectively minimises interpretation (though never eliminates it) through allowing for an individual's subjective opinion to manifest through their own actions, a process known as operant subjectivity in Q studies. The term operant here means to make observable. This term will be further clarified in the section that follows which explains the debate and procedures of Q.

3.3 Part Two – Clarifying the Method

In order for the debate surrounding Q to be put in context I first recap the process of undertaking a Q study and provide the reader with definitions of Q specific terms.

3.3(i) The Q debate and Procedural Issues, the Local Context

First, discourse from people and texts, involved in the topic is collected. Second, a sample of statements representing the range of opinions in that discourse is selected. Third, participants are selected to undertake Q sorting. Fourth, participants are asked to sort the statements according to a particular

instruction.[47] Finally, the statistical procedures of correlation, factor extraction and further rotation of factors are carried out to reveal structure in the data. The results are analysed in terms of patterns in the discourse as revealed by factor scores and loadings. For vocabulary, some of which is uniquely used in Q the reader is referred to Definitions on page xviii.

3.3(ii) The Nature of the Debate

Q's history of being both misunderstood and misrepresented manifest at almost every step in the process of undertaking a Q study. There are a variety of interpretations and arguments on what Q encompasses and the literature is rife with argument on who is doing the 'real' Q. From Q's first introduction in the journal Nature (Stephenson, 1935) it has received a continuing barrage of attacks, including for example those that urged students of social psychology to make no use of it (Cronbach & Gleser, 1954). However, others have welcomed it, saying that it was likely to have an enduring impact on the field of psychology (Ackoff, 1955). Indeed, indicative of continuing debate, is the observation that at Q conferences there is a division between those researchers who knew Stephenson himself directly, or otherwise have some connection to him and 'the rest.' (van Exel, 2009).

It is clear that when Q is used solely as a statistical procedure, taken out of the context of the philosophy of science and psychological principles by which Stephenson defined it, Q can no longer achieve Stephenson's vision for it. Consequently such interpretations could be said to lack the richness and ability to test theory inherent in Q. It certainly has engendered controversies surrounding Q. However, it seems to me that such an argument seeks to cement Q as some kind of universal device. The debates are best read as evidence for the existence of multiple realities. This is well summed up as:

47 Q method is sometimes used intensively so that the same Q sort pack can be sorted under different conditions of instruction. For example, asking how important is each statement, when explaining your approach to your patient? Could be followed by sorting the same pack with the instruction, how important is each statement when explaining your approach to your colleagues?

> ‘That there is no more a core essence to the doing of Q methodology (once we exclude the trivial delineation of operational rules) than there is to the doing of, say, sonnets.’ (Stainton Rogers & Stainton Rogers, 1990, p4).

That being said, as it was important for Stephenson to clarify how his approach differed fundamentally from that of his contemporaries in psychology, it is still important to lay out how Q is distinguished in various contexts. It is my stance that certainly Q has been used in ways that entirely lose sight of Stephenson’s primary premises, such as the rejection of positivism. However, there are also many ways to adopt Q as a useful tool, that do not directly replicate Stephenson’s use of it, but that are nevertheless in keeping with his overall philosophy. Such tools need not be seen as an evolution of Stephenson’s lineage, but as a breaking away from that lineage into potentially new fertile ground (ibid). In such a way, several equally valid versions of Q may exist side by side, to investigate differing problems serving different goals. What remains important is for each study using Q to make its assumptions explicit.

Furthermore, the reception of Q by other researchers has evidently caused frustrations for its users, which one researcher has voiced thus:

> ‘My decision not to use Q-methodology is not an indictment of the method but rather of psychology’s rigid and blinkered approach to factor analytic work.’ (Kitzinger, 1999, p275).

Kitzinger (ibid) found that it was disappointing, at conferences and in papers, that the majority of the time would be spent on defining and defending Q as a methodology rather than discussing the interesting findings that would

normally be the focus. She chose after such experiences to focus on conversational analysis as her main research tool.

The debate surrounding Q as a methodology is undoubtedly a veritable maze, encompassing several issues; is Q qualitative or quantitative and are these useful distinctions? Q claims to make subjectivity objective; does it achieve a breaking down of the divide? Then at every step of carrying out a Q study there are additional debates, such as; what constitutes a concourse and when is it complete? How is factor analysis used in Q and on what are the theoretical distinctions that influence it? How is a sample obtained from the concourse? How much influence has the researcher on the results? These questions are addressed below to clarify my own choices at each stage of the process of applying this method.

3.3(iii) Is Q, Qualitative or Quantitative?

Firstly, as essentially a qualitative method that nevertheless uses statistics, Q highlights the falsity of viewing the two methods; quantitative and qualitative, as diametrically opposed. This has caused debate in ascribing it to one or the other in a research field that upholds such distinctions. Thus, it has been described as qualiquantological (Watts & Stenner, 2005), as a quantitative application (McKeown & Thomas, 1998) and as a rigorous and porous mix of qualitative and quantitative method (Robbins & Krueger, 2000). In section one I clarified my view that, although contested it is nevertheless in its aims a qualitative research method, others (Curt, 1994) share this view. Q does not after all aim to measure anything for its measurement *per se*, but makes empirical discoveries of a qualitative kind (Stephenson, 1936). This means that whilst undoubtedly making use of statistics Q aims to find meaning; a goal usually considered the prerogative of qualitative research. It cannot define such meaning statistically across a population. It never attempts to.

3.3(iv) What a Concourse Represents

This brings us to the second point of debate; what is the concourse? Stephenson (1978) coined the term 'concourse' to be the population from which the sample is drawn. Concourse, by definition of the Oxford English Dictionary (Murray, 1971) means:

> 'The running, flowing together, or meeting of things (material or immaterial); confluence; an assemblage of things brought together.' (p504).

It has the advantage over the term population as this is used in psychometric testing to mean participants and could cause confusion when used in Q, as to whether the participants or the items are, the sample. The latter being the case in Q. The advantage of choosing a word for a concept according to its original etymological meaning is that it carries no baggage of prior use (Mol, 2002). The disadvantage is that it can make reading of social science research unapproachable and difficult to understand. However, in this case concourse aptly describes what it represents, which has been expressed as, 'the cultural knowledges and social constructions that each of us can access both implicitly and explicitly.' (Goldman, 1999, p591).

3.3(v) Concourse Theory

Stephenson uses concourse theory to underpin his method. Concourse theory encompasses a return to a pre-Cartesian subjective (mind) objective (body) disconnect. Such a split led to the idea of consciousness being within one's mind. Stephenson (1980) points out that this use only came into being post Descartes. Prior to this time its meaning was from the Latin '*conscius*' – meaning a sharing of knowledge with others. Whilst a concourse comprises subjective statements on a topic, these are rooted in a culture and are shared knowledge. Yet each statement may have different meanings to the

same person in differing contexts and between people. No statement in other words is normative.

3.3(vi) Generating the Concourse

Concourse generation is a time consuming part of any Q study. It is reflexive and iterative evolving to a point of saturation. That is, there comes a point after which nothing new emerges, with the same things being said in different ways. Therefore, there are a limited number of viewpoints on a topic compared to the number of ways to express them.

The concourse contains various debates and discussions on a topic, its coherence stems from all items belonging to 'one culture' (Stephenson, 1980, p9), or being 'linked in a community sense.' (Stephenson, 1978, p25). In this research the community is one of Chinese medicine practitioners. They share texts and tools, though how these are read and utilised vary. Nevertheless, the concourse will consist of statements to which all will be able to self refer.

Eden et al., (2005) point out that this complex process of generating the concourse is often glossed over in the literature. Indeed, if one takes saturation as the point of concourse completion, Q methodology studies that solely use pre-defined standardised instruments to represent the concourse (Brown, 1985; Baas, 1979) cannot be said to have reached completion; other than in relation to that narrowly predefined topic. Such a concourse has been referred to as ready-made Q-samples in contrast with naturalistic ones (Mckeown & Thomas, 1998). In this category they (ibid) include:

> 'Samples of this type derive from sources other than the communications of respondents. Several subtypes are available:

> quasi-naturalistic Q-samples, Q-samples drawn from conventional rating scales, standardized Q-sorts, and a 'hybrid' category.' (p26).

As with all qualitative research validity is tied therefore to clarity in the reflexive process.

3.3(vii) Quantum Influences

Drawing on his background in physics, Stephenson uses concepts from the Copenhagen interpretation of quantum theory. Firstly, that there is an interaction between the observer and observed (Brenner et al., 1998). Secondly, the concept of complementarity; which states that how an object behaves depends on the choice of apparatus used for looking at it. In the context of Q, how one behaves (applies meaning to the items in the Q sort) depends on ones schemata. Schemata being an active system based on past experiences, interests, beliefs etc. which determine how a person perceives and acts. These schemata are expressed as factors and labelled as operant factors. For each Q sort there are statistically tens of thousands of ways of reacting. However, Q studies repeatedly show that respondents manifest these in just a few distinct ways. Hence, an individual's subjective schemata is actually shared, clearly illustrating Bourdieu's (2002) idea that what we can know is set at the level of society rather than at the level of the individual. Thus, Q is interested in inter-subjectivity.

3.3(viii) Methods of Drawing the Sample

In Q the sample is the statements, the participants are the variables. The sample can be purposively drawn from the concourse, with items chosen to represent its full range. There is debate over whether the concourse needs structuring, to ensure that the statements derived from it are representative and balanced (Brown 1993; Stephenson 1953a). Much of the Q methodology literature does not specify a particular method for selecting the sample from the concourse. It instead talks of themes arising and being broadly

representative of the relevant opinion domain. Hence, there is ambiguity, with statements such as:

> ‘And this aim (i.e. broad representativeness) might clearly be satisfied in a number of different ways.’ (Watts & Stenner, 2005, p75).
>
> ‘Statements were derived from the preliminary research.’ (Collins et al., 2002, p641).

Stenner (1992) simply randomly selected statements from the concourse generated for his PhD thesis, then reduced these through piloting. Dryzek and Braithwaite (2000) in contrast use a 4 x 4 matrix. Their matrix aims to capture what they see as the essential components of political discourse (their field is political science). To achieve representation of the range Stephenson himself initially relied on Fisher’s (1942) local control principle of experimental design to structure the sample, whereby statements are put into groups that are balanced in terms of known sources of variation. This provides a structured block design for example with equal numbers of statements in each group to be represented such as negative and positive statements. He emphasised that theory dictates what the sample of statements will be. However, Stephenson’s (1980) approach later changed to advocating drawing a random sample from the concourse of statements. Brown in contrast to Dryzek and the earlier Stephenson uses no such matrix structure to select statements. He states that it is the holistic pattern of the participant’s sort that matters not the statements themselves:

> ‘The statements of a concourse, like particles in a liquid state, have no predetermined order or importance; that they condense into a particular order is due to the fact that meaning is projected onto them by a person in the course of Q sorting.’ (Brown, 1986, p73).

Hence there are widely different routes to selecting the sample. I chose neither to follow a grid nor randomly select items from the concourse. Instead I purposively selected items that appeared to me, to represent different epistemological positions. For it seems logical that if all statements were very similar the resultant factors would be few. However, I accept that such a designation is only one interpretation and it is the meanings assigned by the participants that will emerge. What is important is to avoid attempting to prove such categories exist or that the correct statements are in the 'correct' cells. Stenner (1992) states, that the meaning of each statement, 'is an emergent property of its embededness in the Q sort as a whole.' (p75).

3.3(ix) The Size of the Sample

There is also debate over the size of the sample. The numbers of statements used in published research varies; as few as eighteen were used for a study with young children (Taylor & Delprato, 1994). Statements numbering in the region of sixty (Hooker Clarke, 2002; Kitzinger, 1987) are common. However, some sorts used by Stephenson in the early years consisted of one hundred and twenty items (Stephenson, 1953b). In more recent literature such a large sort would be uncommon (Collins et al., 2002; Shemmings, 2006; Snelling, 1999). This may be linked to both a movement away from structured block designs in composing the sorts and the practicality of sorting such resultant large numbers which can be both time consuming and unwieldy.

3.3(x) Validity of Statements

In keeping with the commonly held view for survey research, Q-statements are generally considered inapplicable if they contain double-barrelled propositions (Stenner et al., 2006). However, I would challenge this view. It has been argued, on the one hand that it is totally accepted that double-barrelled questions should not be used (in survey research), whilst on the other that some opinions cannot stand alone as they are too tightly bound together (Converse & Presser, 1986). Double barrelled items are believed to create ambiguity as respondents may hold divergent views on the two

independent phrases in one question / statement, adding 'noise' to the results. However, within the field of Q compound statements have previously been used and argued for (Dryzek et al., 1989). Furthermore, it has been found that elite belief systems are complex sets of means-ends chains (Tetlock, 1984). Practitioners of medicine can be considered members of such an elite system, for they have access to knowledge that is not part of lay knowledge. Clinical decisions develop from a set of beliefs, perceptions and values a practitioner holds as a practitioner using specialist knowledge. Hence it would be logical to include statements such as:

> 'Chinese medicine cannot tell if a patient has cancer through its diagnostic methods[48] so of course Western medicine's technology is used for diagnosis.'

Such statements allow participants to state, I do X because of Y. This allows the respondent to agree or not with a causal statement, rather than it being interpreted later by the researcher reading the data. As Q methodology involves several stages, interviews that serve to generate the concourse allow for participants to align themselves with such causal statements. It has also been suggested that as the concourse consists of statements as expressed by the respondents, constraints that apply to survey design do not apply (Boros, 2006). Though it should be pointed out that as the statements are picked out by the researcher, it is possible to select those that are simple, clear and avoid two questions if desired. However, on re-examining the 'gospel' of single-barrelled question design (Hunter & Sabatier, 1987), it was found that validity problems were no more serious with complex questions than with simple ones. Furthermore, they may actually be more

48 Q sort items should not be statements of facts but of opinion, here some may take this item as a statement of fact, but it contains many controversies; some hold that any imbalance in the body will manifest as ill health and such imbalances are what Chinese medicine detects using its four method of diagnosis; hence an imbalance as grave as manifesting as cancer would be detected if not so labelled.

valid as indicated by higher Alpha reliability scores[49](ibid). In interviews causal or justification statements emerge, which can then be correlated with other opinions through the Q sort procedure.

Furthermore, in the Q methodology literature examples of double-barrelled statements are readily found:

> 'Religion should be banished from politics because a democratic politics is based not on truth but on justice.' (Dryzek, 1993, p51).

> 'The main reason women don't have much position in our society is that we have a capitalist system that exploits women's work.' (Snelling, 1999, p252).

So either we conclude that these are examples of errors in statement production, or they signify, as I am arguing, a need for complex statements, the implications of which is reflected on in the discussion.

3.3(xi) Q Sorting

Having generated the concourse and chosen statements from it, participants rank order these statements. The process is known as Q sorting. Note that Q sort items are undefined prior to sorting. At this stage they simply offer a potential for having value. It is the interaction of the person, sorting items, with all that they bring to that task; their schemata and the items themselves that emerge as factors. There is no predetermined framing of meaning; no themes to fit into. The process can be described as a clear example of human and non-human agents interweaving; the sorter and the items. Q

49 Alpha reliability score is a statistic invented by Cronbach. Computation of alpha is based on the reliability of a test relative to other tests with the same number of items and measuring the same construct of interest.

claims to be the science of subjectivity (Stephenson, 1953b); if this premise is accepted, it is undoubtedly as a non-modern science in the sense that Pickering (2006) uses the term; science that reflects the heterogeneous emergent properties of systems in which agency is afforded to human and non-human elements, whereas a modern science rests on the dualisms of modernity.

3.3(xii) The Naming of Q

Looking at why Q is called Q may explain why some of the misconstruing has occurred. There are two main reasons why Stephenson called his method Q. First, Stephenson was working in the field of psychology which used experimental methods based on the mainstream, hypothetico-deductive framework. He needed to distinguish his method from such an approach, and repeated that Q is not a branch of psychometry and has no connections with mental testing methods of the time (Stephenson, 1978).

Mainstream psychology had become known as R methodology (R), Stephenson simply adopted Thomson's (1935) Q instead.[50] Thomson had previously suggested correlating persons instead of traits and he adopted Q to distinguish such a correlation from that of trait correlation that was expressed in R (Brown, 1980). The use of R stems from adopting the r of Pearson's product-moment correlation r, a mathematical component of factor analysis.[51]

50 Symbols have long been used in mathematics. Galton introduced correlation in 'Co-Relations and Their Measurement' Proc. R. Soc., 45, 135-145, 1888. He chose the symbol 'r' for the index or co-relation. The most common measure of correlation is the Pearson Product Moment Correlation. When computed in a sample, it is designated by the letter 'r' and is sometimes called 'Pearson's r'. R methodology encompasses the use of the statistical procedure of correlation along with a hypothetico-deductive framework. In this system correlation is between tests or traits and analyzed by factor theorems. It uses large homogenous samples, assuming that individual differences exist and persons do not interact.

51 Pearson invented factor analysis and Stephenson was Pearson's final student.

3.3(xiii) Factor Analysis in Q and R

There are several issues that arise due to Q using factor analysis. Factor analysis, for the un-initiated, is simply a data reduction technique. It should be stressed that factor analysis is used here as a purely heuristic device, never aiming for absolute answers. Through it patterns are found in complex data. The data are in the form of correlations, seen on a correlation matrix. It is usually associated with quantitative research and the use of it in Q, which I argue is primarily a qualitative tool, has no doubt added to the long list of misunderstandings that surround this method. As Q makes use of statistics, it may attract authors who largely want to present data to audiences of quantitative researchers, heavily couched in a hypothetico-deductive positivist world view. For them, as Q method uses factor analysis it is taken simply to be a psychometric tool (Haslam & McGarty, 2003). What factor analysis can achieve is dictated by the methodology from which it is employed. Stephenson vehemently argued that Q was far removed from psychometric tools.

Hence Stephenson applied factor analysis in a unique way that needed setting apart from its original use. R is applied in mainstream psychometric testing, which aims to measure a person's inner essence or attributes. One example of such tests is the measuring of intelligence with an intelligence quotient (IQ) score. IQ scores are in this way being taken as universal objective parameters. Stephenson's factor analysis correlates data in a different way to that used in mainstream factor analysis. It is not surprising then that some factor analysts simply focus on this variation as being Q in its entirety, viewing it through their existing understanding of factor analysis.

A striking example that clearly illustrates the differences between Q and R factor analysis techniques was given using measurements of the human body (Stephenson, 1936). In R type research, measurements would be in objective units (Centimetres etc.) and factors would group all legs, all noses, arms etc. on separate factors – as generally arms are longer than noses. In

this way it is easy to see how R breaks up people into constituent parts. However, using Q, people would be asked to assess body parts in terms of their subjective significance to them. Resultant factors would emphasise different parts but contain a synthesis of a whole person, such as one with a large head and protruding eyes on short little legs, as Brown (1972) has graphically illustrated, as seen in Figure 3 below:

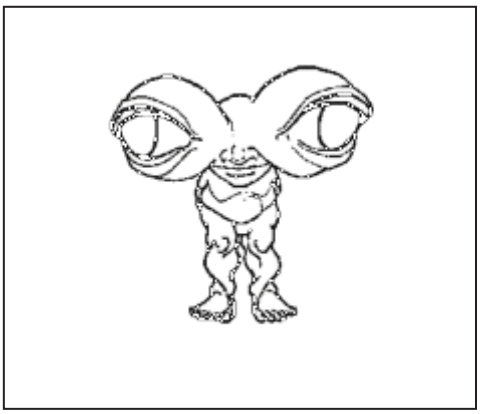

Figure 3: Brown's Q Body.

BROWN, S. R. (1972). A Fundamental Incommensurability Between Objectivity and Subjectivity. *In*: Brown, S. R. & Brenner, D. J. (eds.) Science, Psychology and Communication: Essays Honoring William W. Stephenson. New York: Teacher's Press.

Thus, differing versions of factor analysis result in different interpretations, which have caused great confusion in Q circles. Breaking down of the subjective objective divide as well as other dichotomies are ambitions that are lost entirely when the focus is simply on Q as a type of factor analysis. Rogers (2007) commits exactly this misunderstanding years after Stephenson laid out the details of Q (Stephenson, 1953b), he used Q sorts to correlate 'self' with 'ideal self', that is he took one procedure from Q methodology and used it in a mainstream (R) way. His approach has since been confused with the total procedure.

Similarly transposing of a traditional R matrix has also erroneously been termed Q methodology (Burt, 1940). Burt's underlying assumptions in so

doing are rooted in inter-dependency analysis; for him Q and R were different ways to reach the same conclusion, whereas for Stephenson (1953b) ‘the two are necessarily distinct.’ (p47). Burt simply analysed by row rather than column the same data matrix, whereas Stephenson saw R as a matrix of objective test scores and Q as an entirely different matrix of subjective scores, hence there were two matrices not one as Burt held (Brown, 1972). Taking the body again as an example, when rows and columns are transposed, as Burt suggests, then body parts will form one factor resembling an averagely proportioned human being, such as that in Figure 4 below.

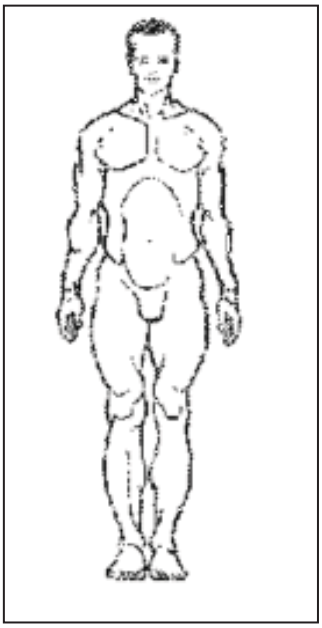

Figure 4: Burt's Transposed R Body.

BROWN, S. R. (1972). A Fundamental Incommensurability Between Objectivity and Subjectivity. *In*: Brown, S. R. & Brenner, D. J. (eds.) Science, Psychology and Communication: Essays Honoring William W. Stephenson. New York: Teacher’s Press.

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Whereas the results from Q method reveal several factors all emphasising different body parts (see Figure 3 above). Each factor would contain a whole human body with various distortions. Reminding us again how a method is not a mere technique; its ‘meaning is shaped by the methodology and model

in which it sits.' (Silverman, 2005, p110). If in naming Q the difference in framework was more explicitly emphasised perhaps some of these confusions would not have arisen. Stephenson in reformulating factor analysis changed its entire potential:

> 'If one presents an instrument (even a Q sort) to a subject with the aim of measuring some theorised inner essence or process, this is instrumentally, R methodology. By contrast, if one takes a Q sort to be the instrumental means whereby participants are enabled to configure positions, express holistic 'points of view', including ones that were not in the expressive experience of the researcher, this is instrumentally, Q methodology.' (Stainton Rogers, 1995, p186).

It is immediately obvious then how confusion about the method can arise; when either an orthodox understanding of factor analysis or a reductionist framework is imposed on Q. Stephenson himself has also been implicated in the confusion, due to his writing style which has been criticised for lacking care and for not being explicit (Cronbach & Gleser, 1954). Furthermore, it is interesting to observe how the method grates with some qualitative researchers (resulting in the aforementioned abandonment of Q as a research tool by one researcher). The adversity to any mention of, let alone utilisation of, statistical techniques reflects *a priori* assumptions of the incompatibility of qualitative and quantitative approaches found in some qualitative researchers' minds.

Stephenson was interested in life as lived from the standpoint of the person living it (Stephenson, 1953b). He aimed to explore individual subjectivity and employed factor analysis to identify groups of participants who Q sort items in similar ways (Watts & Stenner, 2005). Importantly, Q is interested in what such groups say rather than who they are, unlike R method which is interested in individual differences.

3.3(xiv) Procedures of Factor Analysis

Further debate surrounds factor analysis in Q. For factor analysis can be carried out in a number of ways; a variety of statistical techniques can be used. Such techniques themselves are grounds for differences of opinion. It should be noted that in purely statistical terms there is little difference between Q and R. However, it is the configuration of the correlation matrix that varies significantly between the two methods and on which factor analysis is carried out. The different factor analytical techniques can be envisaged as search-lights (Dryzek et al., 1989) exposing aspects of the structure within the concourse dependant on where such a light is shone. Hence, whilst different authors choose different statistical tools these are not creating the data, but simply exposing the operant subjectivity (actions on the items) of the participants. Statements and Q-sorts entered into either of the q dedicated statistical computer programmes available; PQMethod – 2.11 (November 2002) (Schmolck, 2002) and PCQ method (Stricklin & Almeida, 2004), initially result in a correlation matrix of each Q sort with each other Q sort (see Appendix 5); correlating each person with each other; not two variables as would occur in R methodology.

Extraction of factors follows correlation and this too can be achieved through a variety of methods. Stephenson argued for the use of Centroid factor analysis on theoretical grounds (Stephenson, 1953b), though others prefer principle component analysis (Kitzinger, 1987). A primary supposition of Q Methodology is that communication and communicability are indeterminate and generative. Centroid factor analysis, as it produces an infinite number of mathematically correct solutions is in keeping with this supposition. Principal component analysis (PCA) produces on the other hand one mathematical solution. The solution is the most precise statistically. It has therefore been argued that it is deterministic and reductionist (Stricklin & Almeida, 2004).

The same argument applies to judgemental versus Varimax rotation, the former being theoretically driven with multiple solutions. Stephenson's view

was to apply Centroid factor analysis with judgemental rotation. Such an approach allows for inputting known influences to see the data more clearly. However, when Q is viewed as a pattern analytic tool in the study of cultural form, it is argued that standardising techniques – that is using PCA and Varimax rotation (amongst other standard procedures) should be used (Stainton Rogers & Stainton Rogers, 1990). It is proposed that within this framework the grounds for theoretical manipulation do not arise (ibid). I suggest that each option need be explored and choices made according to the findings in each case. Or in other words to shine a variety of search lights to see what is revealed, without prior assumptions of which is the 'correct' method.

3.3(xv) Determining Significant Loadings

As with most processes in Q methodology how to determine significant loadings is open to interpretation, here I will discuss these then in the following chapter present the method I used in this study.

3.3(xvi) Competing Opinions

Factor extraction undertaken as part of R methodology follows the rules of having an eigenvalue > 1.0. However, unsurprisingly in Q, such criteria are not acceptable without qualitative consideration. Brown (1980) has pointed out that it is possible to obtain a factor with an eigenvalue <1.0:

> 'Eigenvalues and total variance are relatively meaningless in Q technique studies as they depend to too great an extent on the arbitrary number of participants included in the study who happen to be of one factor type rather than another.' (p233).

This is due to the eigenvalue being the sum of the squared loadings for that factor and so is dependent on how many people are in the study. Another

criteria R methodology uses is to accept only those factors with at least two significant loaders. However, in Q, a single high loading may be of interest, for example when that person is particularly powerful regarding the topic. Whereby, that single opinion would wield great influence. It has been pointed out that statistical criteria alone are not enough for defining factors, but the social and political context needs to be taken in to account (Brown, 1978). What is important for Q is to have exemplars that have high loadings on a factor, as that factor then becomes interpretable, as explained below:

> ‘A significant loading is one which is sufficiently high to assume that a relationship exists between the variable and the factor. In addition, it usually means that the relationship is high enough so that the variable can aid in interpreting the factor and vice versa.’ (Gorsuch, 1974, p184).

What is high is also a matter of interpretation; one study for example chose to use 0.80 as a high loading (Carlsson et al., 1998); another gives no actual figure but states that a significant loading was high on one factor and relatively low on others (Kitzinger, 1984); another chooses a loading >0.50 on one factor ‘with only negligible loadings on other factors’ (Stenner, 1992, p111). Stenner (ibid) does not clarify what is negligible, however, in his study for sort ‘number 60 it is 0.42.’ (p112). Others are more specific providing a range, for example, ‘>0.6 on one factor and < 0.35 on another’ (Stainton Rogers 1987, p180); whilst others apply communality and loading to determine exemplars (Adams, 2002). Another approach is to make each person an exemplar on one factor; that on which they load the highest, regardless of the figure (Hurd et al., 2010).

A textbook definition of a significant loading is a correlation coefficient indicating how similar each Q sort is to the model Q sort that that factor represents. It is made up of the factor scores which are determined by taking

all those Q sorts that load significantly on that factor alone and merging them. Statistically the closer to the idealised Q sort the original Q sort is, the more influence it has in determining the factor scores. Factor scores are known as z-scores and are more easily compared when turned into whole numbers, such as -5 to +5. Significance has been statistically worked out as the standard error (SE) for a zero-order factor loading: SE=1/√ N (N = the number of statements in the study. For example, SE= 1/√ 60 = 0.129 and loadings in excess of 2.58 (SE) = + / - 0.33 are statistically significant at the 0.01 level (McKeown & Thomas, 1998). However, bearing the previous paragraph in mind clearly there is no consensus on how this is worked out (Carlsson et al., 1998).

3.3(xvii) The Q Sample

Q differs from R in fundamental ways and naturally the criteria by which their validity is considered will be different. R involves a population of persons and may investigate just one trait; hence sampling error theory is important. It draws a sample randomly from a population and the interest is with the 'statistical universes' (Stephenson, 1953b, p62) that are derived from it. Statistical universes are simply products of procedures on the sample.

Whereas Q involves a population of attributes and few or even a single person may participate. Also the population of attributes (made up of items such as statements or images) may be restricted, or be so few as to comprise the entire universe of these attributes, so sampling error theory is not important. Thus, the sample in Q is homogenous in class yet reflects the heterogeneity within that population. That is, it comprises items that are all related – for example all items being pictures of vases, or all being differing statements concerning a particular debate. Minority views need to be represented for the point is not to measure population statistics but to seek out diversity, or in other words to explode unities.

3.3(xviii) Concourse Saturation and Limits of Q

The concept of saturation of the concourse was introduced earlier. Though theoretically it can be reached it can be argued that it is never achieved in practice. Whilst duplication may imply saturation has been reached, one cannot rule out an entirely new approach arising from another source, as with the one black swan falsifying a hypothesis. In fact Stephenson was careful to point this out, stating:

> 'It seems too obvious to mention that a whole situation can never be encompassed if by this we mean, as Thurstone[52] apparently means, the infinite universe of all possible attributes and all possible persons.' (Stephenson, 1936).

Here Stephenson is emphasising that what is meant by saturation of the concourse is completeness instead in the gestalt sense of making a meaningful complete arrangement. This appears to me to indicate that the researcher is very much part of this process. It is Stephenson's argument that all meaning comes from the participants interpreting the items. However, I would argue that the choice of items offered to the participants will influence outcome. In other words a limitation of Q is its insistence on excluding researcher bias; whilst undoubtedly reducing it I would argue that this is unrealistic as there is always interpretation.

As mentioned above Stephenson's choice of emphasising the factor analytic side over the philosophical aspect of the method along with his obscure writing style have no doubt added to the controversy surrounding Q. This creates the need for lengthy explanations whenever Q is used in order to clarify ones appropriation of it, as has been necessary here to exclude an essentialist positivist reading of the method.

52 Thurstone was a contemporary of Stephenson – a factor analyst and critic of Q.

3.4 Method Assemblage as an Aid to Interpretation

The starting point for analysis involves laying out each factor on a table and considering the process by which such a configuration arose:

> 'The interpretation of factors is controlled by the factor scores which, in their entirety, all other alternative interpretations must conform.' (Brown 1980, p257).

Q research focuses first on those statements at either pole of the grid as these indicate strong agreement or disagreement. Then those ranked higher or lower than in other factors are considered. In addition, if a statement is placed in a unique position in one factor, compared to all other factors, then it is said to be distinguishing. Such a statement can then aid in analysing what that factor is saying. Distinguishing statements can be positioned anywhere on the grid (Watts & Stenner, 2005).

However, although the Q literature urges us to consider each item in relation to all others, there is a tendency in some Q studies to focus on those items ranked most high and low (Collins et al., 2002). I suggest that Law's' (2004) method assemblage is a useful lens through which to overcome this tendency and to obtain a fully gestalt understanding of each factor.

Method assemblage is a method of doing research that is designed to overcome the tendency for 'mess' to be written out of research. This tendency routinely occurs in the social sciences, no doubt partly as a response to the demand from journals to seek clarity and specificity of data through tightly controlled methods, even though the real world is acknowledged to be messy. Law seeks to incorporate that mess.

Method assemblage holds that what is given presence in any account depends on what is absent; the mess. This can include what is clearly or manifestly absent as well as that which is othered for various reasons. What is othered can include data that contradicts the integrity of a study's findings, hence, it needs to be repressed. It can also be simply that which is of no interest (neutral). Thus, through broadening method to pay attention to that mess a more complete picture of what is being studied can emerge.

By applying these ideas to factor interpretation, that which is othered will lie (loosely) in the centre of a grid, or that place in the grid that a participant indicated that they started dsagreement. Therefore, those items ranked in the centre of the grid become as interesting as those at the poles. They may be thus placed for being of no interest (neutral) as is frequently taken to be the case in Q studies, or, following Law (ibid), their repression is integral to the constructed narrative.

If we consider that a factor is based on all that can be communicated on a topic, as concourse theory claims (Stephenson 1980), then within each factor is presence, manifest absence and otherness. Each item in relation to each other is what is interpreted. I propose that the highly scored statements, those that the sorter most agrees with are that person's presence, this is the 'truth,' 'facts,' or 'reality,' from one knowledge perspective. Each factor provides then an alternative reality. Those negatively scored items are the manifest absence. What the person doesn't agree with in relation to the research topic they explicitly exclude. Then all that is central, those items that are not considered worthy of a positive or negative opinion can be considered as being othered. These central items then become as interesting as those with high and low scores for being othered; for they are necessary to presence and expose the messy inconsistent boundaries between agreement and disagreement; in this research what is valid knowledge for Chinese medicine and what isn't.

3.5 Summary

In summary, part one of this chapter outlined Q's resonance with other philosophical approaches to research. I argue that it especially resonates with the framework of both Foucauldian discourse analysis and science and technology studies. In so doing Q is firmly placed out of the categorisation as a mere procedural method. Similarly placing Q in the context of other approaches to research clarifies the particular virtues it can offer. Specifically it not only avoids the imposition on data of pre-determined categories prior to collection; a failing of quantitative research but also avoids a laying on of categories that have meaning to the researcher rather than to the participants; a weakness of some other qualitative research methods. Q retains the participant's self reference.

Part two of this chapter stressed the distinction between Q and R approaches; a necessary step in order to avoid a misreading of the approach taken in this research and its findings. This section also engaged with the various procedural debates surrounding Q and stated my position regarding each one. The chapter will have served its purpose if the misunderstandings and misrepresentations involving Q have been overcome for the reader. I have aspired to carefully define relevant terms and explain my position in relation to the debate, which is after all a basic need for all social science research. In addition, I have introduced Law's (2004) method assemblage, as a tool that can be applied, for the first time in a Q study, to aid in the analysis of the data. How I have appropriated Q for my purposes should now be clear. The following chapter on method will focus solely on procedures undertaken and leave the debate here.

Chapter Four: Method

4.1 Introduction

In this chapter I will first summarise the rationale for using Q and its suitability for answering the research question. Then I will describe the practical steps undertaken in completing this study.

4.2 Why Q Methodology is Suitable for this Research

As was seen in chapters one and two the literature exposing the plurality of Chinese medicine is derived primarily from ethnographic and historical studies that largely attribute diversity to broad social and historical influences as well as local contexts (Hsu, 2001; Scheid, 2002b; Unschuld, 1985). I have argued that Q offers one way of exploring the range of this diversity at a point in time. In the previous chapter I expounded the qualities of Q which show that it is particularly suitable for such a task. In fact it is precisely what it was designed to do.

To reiterate, medicine is always based on individuals' subjective judgements. The research method must therefore be able to capture such subjectivity, with as little interpretation being imposed by the researcher. Q is such a method. It makes no *a priori* assumptions about a person's subjectivity; does not seek out core essences; is concerned with the social rather than the individual and makes explicit patterns within cultures. Furthermore, these patterns are revealed through the actions of the participants[53] rather then those of the researcher, overcoming a weakness that can be levied at other methods, such as ethnographical accounts which are always stories of stories.

53 Stephenson coined the term 'operant subjectivity' for this, though, to avoid the use of jargon, it is avoided here.

In Chapter One I stated that early on in gathering the concourse a dominant and widely held view emerged; the vast majority of practitioners I spoke to, believed that knowledge from Biomedicine and Chinese medicine together neatly form a whole, complete and better picture than either alone. I wanted to include this view but also go beyond it. Such a view can be described as a naïve realist one; stemming from the notion that there is one 'correct' whole picture to be had. As such, it is incompatible with a constructionist stance which, rather than aiming to uncover real objective truths, is instead interested in the dissimilar realities that people construct. In looking beyond a naïve realist view, it is evident then that I needed to also consider what would necessarily be minority or silent views. Accessing these minority views is a well recognised quality of Q (Kitzinger, 1984) and is what is often overlooked by other methods of enquiry.

Furthermore, relevant to this research, Q does not only recognise inter-subjectively shared opinions as of interest in themselves, but is also concerned with the relationships between and interconnectedness of these in the gestalt sense of how they all hang together. This makes it a powerful tool for advancing debate on a topic, as points of similarity as well as difference are identified. Thus it is relevant to one of the aims of this study; to achieve progress in the debate surrounding the practice of Chinese medicine. For as was seen in Chapter Two, Chinese medicine both in the West and in China, the latter despite state sanction, has been the recipient of media campaigns questioning its validity. It is precisely this controversial nature that makes Q methodology a particularly suitable means of enquiry (Steelman & Maguire, 1999) for this topic.

4.3 The Logistics of Carrying out a Q Study

The various stages involved in carrying out a Q study, outlined in the previous chapter and listed below, are discussed in turn:

- Collecting the concourse or communication on the topic
- Developing the Q sort through selecting the sample of statements to represent the diversity found in the concourse and preparing the Q sort pack, consisting of statements on cards and a grid for their distribution along with instructions and a booklet for comments by the participants
- Selection of participants to undertake Q sorting
- Participants sorting the items according to the instruction given
- The statistical procedures of correlation, factor extraction and further rotation of factors carried out to reveal structure in the data

The practical aspects and necessary logistical restrictions encountered along the way and their implications are described below.

This PhD work has been undertaken in China – through three fieldtrips totalling nine months and in the UK. During each visit to China different parts of the study were carried out; on the first trip, (July 2006 – December 2006), concourse generation; on the second visit, (January 2008 – March 2008), Q sorting and on the third, (October 2008), results were discussed with available participants. The language barrier and its impact on the research are noted and further discussed in later chapters, whilst here the logistics of translation procedures are outlined.

4.4 Collecting the Concourse

Framing of the initial question; how biomedicine influences Chinese medicine practice, arose from reflections on the literature and my own practice, as outlined in Chapter One. In Q method studies concourse generation ensues immediately on formulation of the question, since it is made up of all that may be communicated on the question, it is not restricted to formal interviews in the way that interview based qualitative research is. My own thoughts and discussions with colleagues or informal chats were as relevant as reviewing

the literature and undertaking formal interviews. Therefore, the concourse comprises communication at many levels. There were no readymade Q packs that were of relevance for me to draw upon in developing the concourse, this being the first use of Q in the field of Chinese medicine, of which I am aware. Whilst there are a growing number of Q studies in the field of healthcare, these have previously focused on specific subject areas such as economics (Popovich & Popovich, 2000), or social psychology (Stainton Rogers, 1987) and are not therefore directly relevant for forming the Q pack of this study with practitioners of Chinese medicine. This is unsurprising as this study is actually difficult to confine within a specific academic disciplinary boundary.

In this study the concourse emerges from different geographical locations, nations and ethnic groups. However, the connection between all these disparate sources is the practice of Chinese medicine; all participants who contributed to the concourse and those later Q sorting were, or had been, practitioners of Chinese medicine.

An interesting division has arisen in the UK, between acupuncture practitioners and practitioners of Chinese medicine, which can be partly explained through the selective uptake and transmission of Chinese medicine in the West; historically acupuncture was more popular in Europe than Chinese herbs, particularly in the late twentieth century.

For this research I had initially intended to include practitioners in the UK who practice acupuncture alone; however, it became evident in discussions with them that not all could be assigned to the community of Chinese medicine practitioners for which all statements of the Q sort pack must have relevance. Indeed, some stated that they didn't do Chinese medicine at all. On questioning they would usually acknowledge that acupuncture arose as part of Chinese medicine, but not always. The overwhelming voice of such

practitioners was that they stood distinct from Chinese medicine practitioners. They have evolved into another discipline from that in which their skill base originates. Such a stance fulfils political motivations. In the time of impending registration of complementary and alternative medicine (CAM) professions in the UK, there are stark divisions within the profession. Such divisions are partly based on ethnic grounds, with most people identifying themselves as acupuncturists being Western and those as Chinese medicine doctors being Chinese. In addition rhetoric of safety was influential in such a division; Chinese herbal medicine's association with the potential for harm was seen to be holding back acupuncturists from a smooth road to state registration. In seeking linkage between participants I therefore chose to define a Chinese medicine practitioner as one that was trained in both acupuncture and Chinese herbal medicine. Such practitioners could then be said to belong to the same community as Chinese medicine practitioners in China who train in both modalities. Therefore this research cannot speak on the views of acupuncturists in the UK who define themselves as belonging to one of the groups that place their practice as distinct from that of Chinese medicine practitioners. Some of whom could be classed as traditional acupuncturists others would be classed as medical acupuncturists. Repeating the research across these groups is a possibility for the future.

It is usual in qualitative research to transcribe all interview material in detail. This is where interviews are the data. However, in concourse generation this is not an essential step, for as is evident from the above, it comprises far more than the recorded, neatly bound structure of an interview. (The details of the semi-structured interviews undertaken are given in this chapter). Furthermore, listening to recordings loses less of the complex that is communication; the tone of voice, eagerness to answer or disinterest which can be lost in transcriptions. Simply listening can engage with these aspects that alter the nuance of what is said. This point of view is expressed in the following:

> ‘What happens when social science tries to describe things that are complex, diffuse and messy. The answer, I will argue, is that it tends to make a mess of it. This is because simple clear descriptions don’t work if what they are describing is not itself very coherent. The very attempt to be clear simply increases the mess.’ (Law, 2004, p2).

In other words, a statement may be more accurately derived from a recording than a transcript of that recording, particularly bearing in mind that the statement thus derived is part of the sample and not itself research data. Of note, is that it is impossible to reproduce the concourse in its entirety, as it is made up of such a range of communications and to reduce it to that which is formally obtained through transcribed interviews would limit its scope. I also kept a notebook of what I was hearing on the topic along the way, which enabled many informal communications to contribute to this study.

Overall opinions from a broad range of age groups and training backgrounds were accessed. Since in Q, subjectivity is seen to be forged in the socio-cultural milieu, I surmised that country of practice and educational background may be important influences. Thus, opinions of practitioners from three broad groups were included; Chinese practitioners trained and working in China; Western practitioners trained and working in the West and lastly a group from either location with training or practical experience in the other location.

Language restrictions influenced my relationship with Chinese speaking participants and impacted on how the research was undertaken. During the first fieldwork trip, where concourse gathering was undertaken, I could speak very basic Chinese and largely relied on written materials and a translator. The term concourse in Chinese has been translated as *lunhui* 论汇, literally - discuss/theory, converge/gather together; *jihe* 集合, literally - gather,

combine; *heliu* 合流, literally - combine, flow; *guandian* 观点, literally - look at/watch, point/feature and *huiji* 汇集, literally - converge/gather together, gather. Following discussions with a variety of native Chinese, Chinese medicine practitioners and academics I decided to use the term *heliu* 合流 as best reflecting the meaning in English. However, when explaining the method in Chinese I always explained that those other terms are preferred by other authors in order for the concept of concourse to be more fully understood. This provided insight for such participants as to the purpose of the questions; in effect it was a brief introduction to the theory underpinning Q. On reflection a similar amount of effort to explain the term to English speakers would have been valuable. For although not an uncommon word it is rarely used in relation to communication, this often led to questions later on during the Q sorting. Such questions may have been averted if greater explanation had been given of the term itself. This reflects, in contrast to what may at first glance be expected, when conducting research in a second language, in which the researcher lacks fluency, that there are several unexpected positive outcomes. Further examples in relation to carrying out interviews (discussed below) further emphasise this point.

4.4(i) Logistics: Gathering the Concourse in the UK

In the UK a combination of strategic, otherwise known as theoretical and snowball sampling methods were used to generate discussion on the topic. Starting from a pool of practitioners that I knew personally I was thus able to reach beyond these. Certain practitioners were known to hold particularly strong viewpoints; some for their anti biomedical stance (for example, participant 32 who became an exemplar on factor 4) and others for the opinion that biomedical diagnosis and testing is essential as a starting point (for example, participant 39 who loaded significantly on factor 3). Such people were strategically sought out to add debate to the concourse.

However, I had less direct contact with emigrant Chinese trained practitioners who currently work in the UK. Therefore, I undertook one translator assisted discussion in a Chinese medicine shop with a doctor who spoke limited English and one loosely structured discussion with a group of three such practitioners who all spoke excellent English. On both these occasions I read a paragraph in Chinese that outlined the research question and some of its implications as a starting point for the discussion, contributors were then asked to comment.

Due to the richness of the communication available to me in English and the relative ease of its access I found it unnecessary to formally interview most people in order to gain opinions on the topic. Furthermore, the concourse drew on a smaller scale Q study on this topic that I had carried out as a pilot for this research. This pilot was carried out with a small conveniently sampled group of local UK based practitioners.

A rich source for concourse gathering proved to be internet practitioner discussion groups; these appear to attract those with strong views on various topics. One such group I accessed was a closed group, with access by invitation only. This group appeared to me to function in a way similar to a focus group. That is, people are invited to attend who often have something in common. In a focus group this allows people the confidence to air their views, as in such an environment these are likely to be respected, while at the same time allowing for differences in opinion to arise and changes in viewpoints to occur . In the discussion group referred to above, as an invitee to the group, I could pose questions and observe or reply to the responses, in a way that is similar to a semi-structured interview. On the other hand, I could just observe the discussions as they developed on topics related to my question. Thus, the data emerging could be considered both a manufactured article of a research setting (when I pose a question to the discussion group) and naturally occurring data (when I observe discussions taking place).

For me this provides a good example of how certain social science researchers[54] are mistaken in holding up naturally occurring data as the 'real' or only valid data. Such a stance can be attributed to a hangover from the thinking found within a positivistic quantitative paradigm. Such thinking seeks to eliminate variables. Qualitative research that privileges removal of the researcher, in other words naturalistic research, is following this thinking. In contrast, I view the relation between the researcher and participants as not only inevitable but also as a useful resource that adds depth to the data, rather than contaminating it.

4.4(i) Logistics: Gathering the Concourse in the China

Chinese medicine doctors were contacted during a six month field trip in China. There, my relationship with contributors was generally more formal than in the UK. Access to contributors was initially via the CACMS. A contract was drawn up between myself, the researcher and the institution at their request for carrying out the research. It stipulated that up to 40 interviewees could be contacted. This was based on an overestimate of that which I considered would be required. The full forty were not required once saturation of the topic was reached, through both these contacts and others accessed independently via personal introductions and chance encounters with Chinese medicine doctors. Saturation here means that no new opinions emerge simply different ways of saying the same thing are heard.

Since there are five Chinese medicine hospitals in Beijing affiliated with the CACMS and doctors are invited there to attend conferences and meetings from all over the country, a broad range of doctors could be accessed. In China, Chinese medicine hospitals are divided into specialist departments in much the way that hospitals in the UK are structured, hence these doctors from varying departments represented a diverse range, in terms of both their

clinical skills and training. Q does not aim to be statistically representative, so it was not important, for example, to make sure that practitioners were contacted to represent each Chinese state; it was diversity of views that were important. Whilst it could be argued that asking doctors opinions, mainly in Beijing, would produce a bias, this is ameliorated by the fact that many of the doctors working there are not from Beijing; as with any capital city people are attracted there from all over the country. Hence views that are influenced by background and local culture are more widely represented than if one was to go to provincial areas. In addition, practical limitations partly determined this choice of location; forging working links with many different institutions would have taken considerable time, not to mention the geographical vastness of China that would have entailed substantial additional financial costs. Nevertheless, through my supervisor's contact, I also interviewed a Chinese medicine doctor based in Hangzhou.

I found that the CACMS were keen to arrange interviews with people of influence; those heading societies for example, or holding influential research positions[55]. Such people tended to be in the >55 age group, whereas I wanted to include younger and less 'important' doctors also. The professor assisting me at the CACMS had a list of doctors that she could ask to accept my interview, yet she would not let me see it. Despite my explanations that it was necessary for me to research the person's background so as to tailor my questions to their experiences and that I needed to interview different types of people, no list was forthcoming. This situation reflected the powerful influence of *guanxi* (see footnote 55 and section 7.1). I ascertained that the control was needed as there was the fear that if I knew the people on the list, then I could go to them directly. Hence the professor was protecting her place in the research *guanxi*. However, the approved interviewee list was clearly biased towards doctors in positions of power which, from the professor's view such eminent *guanxi* connections, would have raised her status. I was being introduced to those who sat on committees, or were

55 This is in keeping with the importance of *guanxi* - social connections reflecting one's own status.

presidents of various Chinese medicine organisations. Such people in interview said remarkably similar things; making use of the rote learned sayings taught as part of Chinese medicine. Undoubtedly such views reiterated the state sanctioned 'correct' version of Chinese medicine. Often several interviewees would follow each other and it was not uncommon to hear them ask the translator, 'did I say the right thing?' '*wo shuo zhengquede shi*?' '我說正确的事?' Hence at this stage I needed to find other opinions. However, this situation was circumvented to some extent as part of the contract, between myself and the CACMS, I was appointed as an English language teacher to some of their doctors one afternoon per week. The ages of those attending varied; several were new graduates in their early twenties, others experienced clinicians in their fifties and all in between. Furthermore, different people attended each class. These classes became a valuable source of opinions. This proved beneficial for several reasons. Firstly, I asked the professor if I could interview some of them and this was willingly agreed on. These doctors were almost all under her in the hierarchy of the CACMS, so she could simply tell them to see me. Furthermore, this would not require pulling on her various *guanxi* connections that had figured up until now. Secondly, I was able during the lessons themselves to discuss my research question. In such a context the doctors were not answering questions as interviewees; they were not looking for the 'right' answers. In a sense debate was permitted in this context. At times I actively set up such debates asking them to argue against each other. This often resulted in some members getting very passionate about what they themselves thought, which they often felt it necessary to express after the staged debate. I could ask them how they came to study Chinese medicine and what they thought of the raging internet debate on the proposed banning of Chinese medicine launched by Chinese scientists (referred to in Chapter Two). In other words the context changed the power in our *guanxi*. Our mutual roles were entirely different; as a teacher, a highly respected role in China, I was able to glean different information about Chinese medicine than that spouted as the official 'correct' version that foreigners would be allowed to hear. For the doctors, as English language students, they were able to offer more personal opinions.

However, the classes were still under the eye of the professor, thus I was keen to listen to other opinions. Therefore, I sought out, primarily through the translator, doctors in the younger age group; her peers. I also advertised my topic in the CACMS postgraduate student dormitory where I was staying which attracted several young doctors keen to contribute comments. Also I posted an advert in English in the attached overseas student dormitory, which rather than attracting overseas students led me to an interview with a doctor working in the acupuncture clinic opposite that building. I purposively also sought out an older doctor in his eighties whose journal article (Lü, 2006b) I had read and which reflected radically different views to those that I was hearing so far. He was contacted by a letter hand delivered by my translator followed by an interview carried out in his home facilitated by this doctor's own student.

Several non-Chinese living and studying in China also contributed. One had learned apprentice style from several doctors for over twenty years (participant 20 who became an exemplar on factor 5). Another (participant 1), a very young practitioner, disillusioned with her training in the West, was following a Chinese doctor who lectured internationally. Others were gaining clinical experience in the state run hospital system as part of their London based Chinese medicine university course.

Discussions alto took place with other clinical doctors who had been introduced to me personally through a variety of contacts. One of whom was a clinician in an infectious disease hospital, *Ditan yiyuan* 地坛医院, where I was able to undertake clinical observation. This provided a very different clinical context to that provided by the CACMS as it was a biomedical hospital with a Chinese medicine clinic within it. Another worked in the rapidly developing private clinic sector, where I attended as a patient.[56] Finally, I travelled to Hangzhou, a city close to Shanghai, to discuss my

56 I received acupuncture for a shoulder injury following a minor road accident.

research and observe the clinic of an older doctor. He was well known to practitioners in the West since he spoke good English and had travelled in Europe to lecture on several occasions.

All those taking part were clinical practitioners or jointly researchers and clinicians, except for one Chinese researcher who headed a research department at the CACMS and no longer worked in clinic. He was included due to his influential position regarding Chinese medicine. Through this position he was able to determine the development of Chinese medicine research in China and control the education of young doctors and researchers. This person later took part in the Q sorting and became an exemplar on factor 3.

In China approximately half of the doctors who contributed to the concourse spoke English, therefore, as well as semi-structured interviews, I was able to have less formal discussions, more similar to the approach taken in the UK compared with those only using Chinese. With Chinese only speakers, semi-structured interviews were carried out using questions from a pool of pre-prepared questions (see Appendix 2). The order of the questions varied as each interviewee responded differently to each question, at times covering the scope of the next question. These were delivered in Chinese by myself and the written question shown to minimise possible confusion due to pronunciation difficulties. This method sought to reduce communication between the translator provided and the participant.

In Beijing CACMS assigned me a Chinese medicine post graduate student as a translator. This person was keen to understand qualitative research which is rarely used in medical research in China. The translator was specifically asked to not interject, or to stop the participant after every sentence to translate. This method allowed participants to take the question into areas that interested them without interruption. Also it was felt that it was

important to make the participant feel as if their answers were for my ears, rather than for those of the extended network of social relations that the student was enmeshed in.[57] Hence, this method served to avoid the interview turning into a lecture on Chinese medicine for the purpose of the translator, who was a Chinese medicine student. The main role for the translator was to introduce me; say why I was there and from where I came, rather than play an active role in the interviews. Her skills were in summarising briefly what had been discussed as the interview progressed and in transcribing and assisting in translating from the recording post interview. In interviews she was helpful in keeping a low profile. On a few occasions a different student was sent with me and the contrast was marked; half the interview time would be spent with the interviewee discussing the student's supervisor's work. It appeared that in such situations replies to my questions were actually aimed at giving the right answers, as they perceived them to be, that would please the student's supervisor. Clearly, developing a relationship based on trust and understanding was crucial when gathering the concourse and indeed at later stages of the study, particularly when searching for participant Q sorters.

A possible drawback of this method of interviewing was that I could not fully understand what was being said to me until after the interview. This can be considered a limitation of the study, if good interview technique for a semi-structured interview is considered one that takes up the nuances of the interviewee's responses. However, I found that it allowed a freedom for the interviewee to talk in a gestalt manner; uninterrupted they would talk at length and discuss areas that they were individually interested in. Such a technique limited my influence in moving the conversation to those areas that I expected to be of interest. This I suggest has its benefits. Particularly when interviewing Chinese doctors who spoke very good English in China, it was evident that I both tended to interrupt more and take up threads in their responses that resonated with my own views. Hence, what can at first be

57 Such social networks termed *guanxi* 关系 are particularly structured and influential in China. The term is discussed further in the following chapter.

viewed as a limitation can also be an asset in carrying out the research, allowing for less researcher interpretation.

In total 28 semi-structured interviews were carried out. Twenty translator assisted interviews were carried out in Chinese, including three group interviews. Eight interviews were undertaken in English one of which was also a group interview. Interviews were digitally recorded. Transcriptions of the Chinese recordings were undertaken by the Chinese student present at the interviews. Translations were done jointly by myself and the student. English language recordings were transcribed by myself. As mentioned above, not all English language recordings were transcribed as adequate understanding was obtained through repeatedly listening to them. To reiterate, the interviews are not the data themselves, but can be likened to the early stages of research, such as a literature review in other methods. A sample transcribed interview is given in Appendix 1. An excerpt of a transcribed and translated interview is given in Appendix 3.

4.5 Developing the Q Sort

The Q sort involves several items; the statements themselves and the grid for sorting these on, along with instructions and a comment booklet. Selecting statements, reducing these to a manageable size and constructing the grid are explained below.

4.5(i) Selecting Statements

The Q sort is developed from the concourse. The material gathered was read and reread and recordings listened to repeatedly. As this study is interested in how practitioners view knowledge and what assumptions they hold, I was looking for similarities and differences in how knowledge was being presented as valid. Various themes appeared across participants as well as within each participant's views. I followed the method of loosely structuring items (statements) around themes (Shemmings, 2006). Such themes

emerge inductively from the statements. Structured samples can alternatively be arranged according to a particular theoretical stance (McKeown & Thomas, 1998, p28) as was discussed in Chapter Three. Which practice is preferred is of little importance; both serve to produce a comprehensive and representative sample of the concourse. Relevant both at this stage and later in the analysis is Stephenson's warning against forcing data into pre-existing theoretical categories. The themes identified (see Table 4) represent six different ways of viewing medical knowledge and encompass different ways of looking at the world which I found to be a broadly representative condensation of information of the opinion domain. Statements were apportioned equally to each. The purpose of these themes is largely to aid in the reduction of statements and should not be considered definitive as to where they should belong, as if only one correct placement is appropriate. Or in other words, the use of themes or structured cell designs make explicit the researcher's frame of reference but do not measure the participants' frames of reference.

In deriving the items attention was placed on the importance of attaining a balance between positive and negative terminology. This is not simply the negation of an item so that antonyms can be placed at equal + and – positions on the Q sorting grid. The positive - negative balance is illustrated by statements 37 and 39:

37. A Chinese medicine diagnosis is not as exact and clear as a Western medicine[58] diagnosis 中医的诊断没有西医的诊断更精准与清晰

39. Western medicine understands the workings of the body Chinese medicine can only know a part 西方医学了解整个身体的运作，而中医仅能知道部分

58 The term Western medicine was used as the English translation of *xiyi* 西医, which is synonymous with what I refer to as biomedicine elsewhere in this document. The emergence of the term *xiyi* is discussed in Chapter Two.

The first statement is negative the second positively voiced. Whilst some argue that negative statements should not be used in Q, as they can become confusing when ranked in the negatively scored area of a grid (Stainton Rogers, 2009), I found that in this study participants did not require any clarification. This is in keeping with another of the world's most respected Q methodologists, Steven Brown (2010) who states:

> 'There is absolutely nothing wrong with having negatively-worded statements. The Q sorter has the opportunity to either embrace or reject statements no matter how they are worded.'

Other Q sorters also concur (Sickler et al., 2006) and it is the stance I take in this research. In addition, there is the view that we may respond differently to positive and negative statements hence the Q sort pack needs to be balanced in how statements are presented to reflect this (Hodges, 2008).

4.5(ii) Translating Statements

All the statements and instructions that were derived from English sources were translated into Mandarin Chinese by a native Chinese speaker. These were checked for accuracy, particularly in relation to the correct use of Chinese medical terms by bi-lingual Chinese medicine doctors whose first language is Chinese. These were then back translated and accuracy checked. It should be noted that the vast majority of Chinese doctors involved in this study were able to read English even when unable to speak it. Statements originally in Chinese were translated by myself with the aid of my assigned translator at the CACMS and back translated by a Chinese medicine practitioner whose first language was Chinese.

4.5(iii) Reducing Sample Size

Distributing statements into broad themes resulted in well over 200 items. This pool of statements was then reduced to a 60 statement pack. This was done jointly with the assistance of two other Chinese medicine practitioners. Discussions took place as to where the statement belonged across the themes and indeed if the themes stood up to scrutiny. This served to remove partial repetitions, ambiguous items and those that are largely sorted in the same way and thus fail to discriminate (Collins et al., 2002). Items that stood out as lacking relevance when asking how medical knowledge is viewed were removed. Duplicate, confusing and irrelevant statements were thus removed until the most salient remained. This resulted in the layout of 60 items shown below in Table 4.

Table 4: Structure of Q Sort Items

Theme	No. of items	Item numbers
Chinese medicine is practised using a reductionist framework of biomedicine	10	3,10,11,12,15,29,33,38,45,60
Chinese medicine subsumes biomedical knowledge; Chinese medicine is a grand narrative	10	1,5,6,7,8,13,25,35,37,49
Biomedicine is the one and only correct and superior view	10	2,16,21,22,30.39,40,50,54,59,
Chinese medicine has only a partial view of the reality totally known to biomedicine	10	4,14,17,18,23,28,34,36,43,55
There are different realities seen by each medicine, together they make up a total picture.	10	20,31,32,41,44,46,47,51,52,57,58,
Rejection of biomedical information as being the correct view, but a different reality that can obscure rather than add information.	10	9,21,24,26,27,41 ,42,48,53,56

4.5(iv) The grid structure

The activity in Q is one of sorting a pack of items drawn from the concourse. The items in this Q study are statements[59] in columns. Each column has different numbers of items forming a grid. The grid used shown in Table 5

59 Q methodology can involve sorting items that can be statements, fragrances, objects, images or potentially audio files.

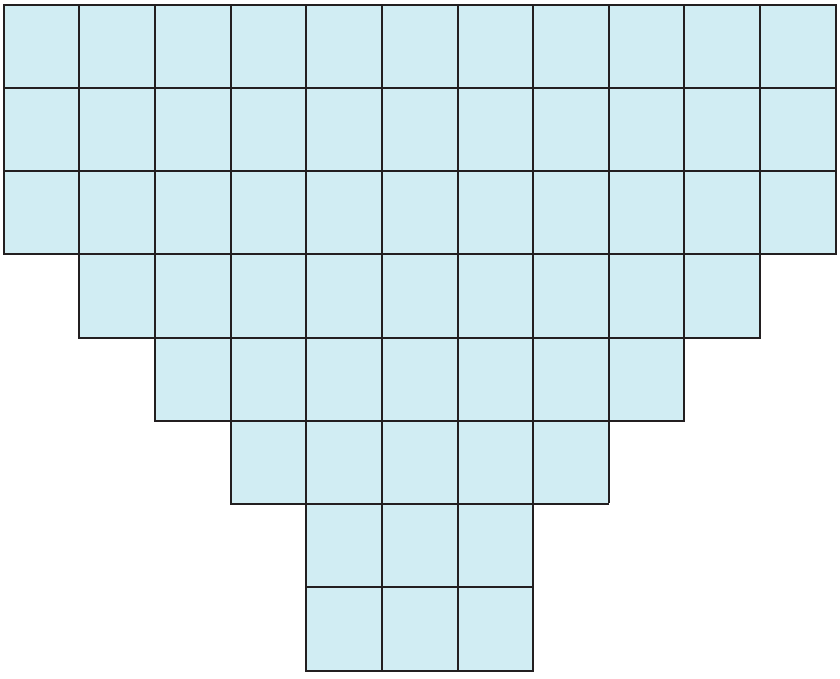
below is modelled around a quasi normal distribution with sixty positions ranging from -5 to +5, as Brown (1980) recommends:

> ‘As a rule, Q samples smaller than N=40 can safely utilize a range of +4 to -4; from 40 to 60, a range of +5 to -5 is generally employed.’ (p200).

Table 5: Sixty Item Grid

Least agree 最不同意 Neutral 无意见 Most agree 非常同意

Score	-5	-4	-3	-2	-1	0	1	2	3	4	5
Number of cards	3	4	5	6	8	8	8	6	5	4	3



Though free sorting can be used, a grid that forces a distribution was chosen. In so doing certain limitations of a Likert scale are overcome; firstly the tendency when using a Likert scale to get stuck in one area of the scale; secondly, as it is necessary to carefully consider which are chosen to

represent the extreme positions, placement of the cards without consideration is minimised (Boros, 2006). Such a distribution is not statistically significant. It serves to facilitate the sorting procedure and forces consideration of relative acceptance of the items. It has the added benefit over a free sort in that it allows the researcher to amend participants' errors. By this I mean that if an item was entered twice and another left out it is possible to insert the missing item by considering it in relation to those around, or in other words by using informed guessing as to which of the positions of the duplicated item doesn't fit in.

4.5(v) The conditions of Instruction

The instructions given to participants for sorting should naturally reflect the research question (Watts & Stenner, 2005), those given here were:

Q-sorting:

The cards contain people's opinions on how they use Western medical information in Chinese medicine practice, arrange these according to whether you agree or disagree with them. First, sort all the cards into three piles of don't agree, feel neutral about and do agree, then sort each pile into its final position matching the pattern of the grid, afterwards add any comments you would like to make.

Thank-you for taking part

Q 分类 答案纸

这些卡片包含关于如何在中医实践中使用西医资讯的相关意见，请按照您同意与否的程度将这些卡片分类。

首先，请将这些卡片分为同意、不同意与无意见，其次，将每一类卡片放在格子理适当的位置。最后，若您有任何意见，欢迎您写下来。

谢谢您的参与’

An A5 size booklet was provided with the grid. It contained the statements with space under each for comments and space for other / general comments. People were asked to fill in comments after the sorting, particularly for those items they felt most strongly about.

4.5(vi) Piloting the Pack

As mentioned previously, a pilot Q study on this topic was carried out using a small number of practitioners. The purpose of which was to both learn how to do Q and also to assist in building the concourse for this study The Q sort pack itself, used in this study was piloted in the UK with ten MSc level students and two lecturers. These participants included both native Chinese and Westerners. The items were formatted in PowerPoint and randomly sorted and numbered. This format allows for six items to be printed per page as cards. These were cut into individual items and shuffled. This resulted in identification of an error in some of the printed grids and poor correlation between the Chinese and English meanings on two statements. These were subsequently amended and formed the basis of the final Q sort pack.

4.6 The Participants: the P Set

4.6(i) Sampling

When selecting participants, it is necessary to ensure that pertinent characteristics are represented (Dryzek et al., 1989). In other words a random sample is not needed. This is as the participants represent, what would be termed in R methodology, the experimental conditions. The need is therefore to subject the sample, which is the Q sort items, to different experimental conditions, here subjective opinions. Purposive, convenience and snowball sampling of practitioners of Chinese medicine was undertaken to maximise diversity of views. Hence selection was undertaken to maximise

disagreement. Randomness comes into operation in the way an individual sorts that sample.

4.6(ii) Demographics / Sampling Criteria

Purposive sampling necessitated taking the following criteria into account:

- Broad age group; young, middle aged, older
- Practitioner experience; trained / work in China / in the West / in both
- Practitioners known to hold different opinions

In total forty five Q sorts were included from participants who sorted the sixty statement pack.[60] Bearing in mind that the purpose is exploratory allowing individuals to categorise themselves, it was not considered essential to strictly sample according to demographic groups. However, as mentioned above I surmised that a practitioner's Chinese medicine training and experience of practice would influence their opinions. Therefore, as with gathering the concourse, three broad groupings were selected; Chinese practitioners in China; Western practitioners in the West and a cross over group, consisting of people from either place with experience living, training or working in the other and also having bilingual skills. Gender was balanced with 22 male and 23 female participants. It was important to access people of different ages, but it was not considered necessary to have each equally represented in number. Naturally that would also have been impossible to achieve given natural population demographics, the broad age groups were < 30, 30-55 and >55, these would reflect differing levels of clinical experience as well as different training backgrounds.

Those participating in the UK came from several countries including Taiwan, Italy and Poland, an Australian and American practitioner were also included. In China access to doctors was initially through the CACMS. In addition, to procedures mentioned above, participants were enrolled via the Beijing

60 45 completed Q sorts, though there would have been 46 but one was lost in the post.

University of Chinese Medicine and through personal contacts in Beijing. A renowned practitioner and author based in the south of China also participated whilst on transit through Beijing.

It should be noted that, as with any research project there are practical limitations imposed by economics, time and geography. Hence convenience sampling was also employed and as in any study, certain invited participants failed to respond. The sample is not intended to be representative therefore random and stratified sampling was not necessary. The demographics of participants are outlined in Table 6.

Table 6: Demographics of Participants

A: Non Chinese practitioner living / having lived in China or Chinese practitioner living / having lived in the West	B: Chinese practitioner solely in China	C: Western practitioner solely in the West

No	A	B	C	M	F	<30yrs	30-55	>55yrs
1.	1				1	1		
2.		1		1		1		
3.		1		1		1		
4.		1			1	1		
5.		1			1	1		
6.		1		1			1	
7.		1			1		1	
8.		1			1		1	
9.		1		1			1	
10.		1		1			1	
11.		1			1		1	
12.	1			1			1	
13.		1		1		1		
14		1		1				
15.		1		1		1		
16.		1			1			
17.		1			1	1		
18.		1			1	1		
19.	1				1		1	
20.	1			1			1	
21.		1		1			1	
22.		1		1				1
23.		1			1		1	
24.		1		1				1
25.	1				1		1	

No	A	B	C	M	F	<30yrs	30-55	>55yrs
26.	1			1			1	
27.	1				1	1		
28.	1				1		1	
29.	1			1			1	
30.	1				1		1	
31.			1		1		1	
32.			1	1			1	
33.			1		1		1	
34.	1			1			1	
35.			1		1		1	
36.			1	1				1
37.	1			1			1	
38.	1				1		1	
39.			1		1		1	
40.			1	1			1	
41.			1		1		1	
42.		1			1		1	
43.			1		1		1	
44.			1	1			1	
45.	1			1			1	
Sum	14	21	10	22	23	10	32	3

4.7 Q Sorting

The logistics of sorting varied across locations and needed to be adapted sympathetically to the cultural demands that the different situations posed.

4.7(i) Logistics in the West

Q sorting involved a lengthy rank ordering task for each participant, although time taken varied widely, from about twenty minutes to almost two hours between participants. Participants in the UK, one in the USA and Australia were sent the packs. They were instructed to write the card's number on the grid according to their chosen position for it, then to add any comments particularly in relation to items placed at either end of the spectrum in the booklet. They were asked to then mail the completed grid back to the researcher in a stamp addressed envelope provided. Email and phone contact was available for any questions. Expenses were not paid as people were willing, easily recruited and interested to take part without them. A small subset of practitioners undertook the Q sorting at their workplace that I

visited and was thus able to explain the procedure in person. These packs were collected at the end of the sorting process.

4.7(ii) Logistics in China

In China Q sorting was undertaken in small groups, where I was present to explain the task along with a translator. One group at Beijing University of Chinese Medicine consisted of doctors undertaking post-graduate training. These were given a lecture on Q methodology prior to undertaking the sorting. Large desks were available and no talking during the session between participants was allowed to ensure that each participant was sorting according to their individual criteria. Booklets were completed after the sorting and the process commentated on briefly with each person. Each participant was offered an expenses payment of two hundred Yuan (amounting to approximately fifteen pounds sterling at that time). This was to encourage participation. It was given in acknowledgement that, for most of these participants, it was an extra demand on their time, in addition to their already busy work schedules. The post-graduate students did not receive payment, as it was arranged as part of their research methods training. A single participant did not accept the payment, stating that it was his duty to help others. See the following chapter and discussion of factor 5 as to how this is an integral aspect of that factor on which he is an important contributor.[61]

4.7(iii) Unique Adaptations

For three Chinese participants, all eminent doctors two of whom, as octogenarians, were also older than most others taking part, an original method was developed to construct their Q-sort. The Q sort process was explained to them. They were asked to read each of the sixty statements and then discuss them, indicating if they agreed or not with each statement, one by one. Through their discussion the researcher and translator constructed

61 This person was an exemplar on the factor.

the grids independently of each other. The validity of this adaptation needs considering in the cultural context in which it took place as is explained below. For each statement these participants were specifically asked if they agreed with the statement or not. Some statements were discussed at length others quickly dispensed with. It was evident to which of the initial three divisions each belonged, with the finer assignment being based on emphasis and strength of opinion on the item. At times a statement did not arouse great discussion; nevertheless, it was assigned a point at either end of the grid, such items reflecting such total agreement/disagreement that further discussion was unnecessary. The researcher and translator compared their grids and reassigned items after discussion, based on listening again to the entire interview, in order to as closely reflect the participants' views as possible. Inevitably this has involved a greater element of interpretation of the participants' viewpoint than if the Q-sort was administered in the orthodox way. However, conscious awareness of this difference is carried through to the analysis. Both myself and the translator both participated in the sorting, neither of us are exemplars on any factor. This allows for our reference points to be explicitly taken into account and thereby the validity of this novel format to be judged.

Such a procedure was deemed necessary for several reasons. The advanced age of two of the octogenarian participants automatically demands due respect in Chinese culture and it was felt that taking on the physical placement of items as indicated by their instructions (opinions) most closely mimicked what is known as 'following' a doctor in China, that is accompanying her in clinic. For example, it is routine for young doctors to sit in clinic with experienced doctors, taking on the physical writing of prescriptions and case notes as the doctor speaks. Such tasks not only act as learning tools, but socially demark the elder doctor as superior allowing for a higher status in the eyes of the patients. Similarly, respect for elders or 'superiors' is seen in the education system in China which contrasts sharply with that in the West; students are expected to stay silent in lessons, questioning is not seen as a sign of an enquiring mind but of a challenge to

the authority of the teacher. Furthermore, listening to these doctors speak at length around the items was also a way of gaining a greater understanding of their views. The Q sort was in effect turned into an interview and recorded. This allowed for the constructed grid to be compared with the views expressed in the interview. In addition, I was not confident that the translator fully understood the philosophical underpinnings of the method and could convey the intricacies to them. I felt that this could have resulted in far less engagement with the statements, possibly resulting in them being arbitrarily assigned if Q was perceived as an overly simple task.

4.8 Statistical Procedures

60 statements and the 45 completed Q-sorts were entered into the computer programme PQMethod – 2.11 (November 2002)[19] for statistical analysis of the Q-sorts. To obtain the data several statistical procedures are carried out; correlation, factor analysis and rotation of factors.

4.8(i) Correlation

The initial correlation matrix measures each sort's relationship with each other sort (see Appendix 5). This varies between -1 indicating perfect negative correlation and +1 indicating perfect positive correlation with 0 representing no correlation.[62] It provides the raw data for factor analysis that looks at the correlation matrix for groups that bear a resemblance.

4.8(ii) Factor analysis and Rotation of Factors

As explained in Chapter Three, due to the continuing debate over which method of factor analysis and rotation produces the most meaningful data, I tried various methods and compared the results before finally arriving at accepting the solution of principle component analysis extracting eight factors with Varimax rotation of seven. It is common in the UK to use such

62 Pearson's product moment correlation r is used to calculate correlations between sorts. The mathematical details of Pearson's r are widely available in any statistics reference book.

steps (Watts & Stenner, 2005) reflecting the difference between Q studies in the UK compared to those in the USA, which more often adhere to Stephenson's exact criteria (Stainton Rogers & Stainton Rogers, 1990).

However, I wish to clarify the steps undertaken in arriving at this solution and thereby illustrate the validity of the data presented here. Initially I had intended using Stephenson's preferred route of Centroid extraction and manual rotation. Hence, I first undertook Centroid extraction with manual rotation using various numbers of factors, ranging from three to eight and rotating to maximise the oldest participant on one factor; then Centroid rotation followed by Varimax rotation; followed by principle component analysis and Varimax rotation again retaining a variety of different factors; and also principle component analysis with manual rotation again maximising the loading of the oldest participant on one factor. Factor Rotation involves changing the reference points of the orthogonal axes. It aims to find simple structure (Kramer et al., 2003). Or in other words rotation maximises individuals' Q sorts on one factor. Factor rotation provides a shift in perspective without altering the data. Whilst Varimax rotation provides the statistically most precise solution, manual judgemental rotation is preferred by many of Stephenson's followers as it allows for the application of theory, or hunches to allow for any Q sort to load on one single factor, or to maximise the loading on a factor. Judgemental rotation has been criticised for its subjectivity but this is mistaken (Brown, 1980). The existing structure of the data itself remains unchanged, it simply allows for existing patterns to emerge. This process can be thought as one of moving around the spheres of opinion. It doesn't alter the Q sorts or their relationships, but allows them to be viewed from different angles. Despite having initially been keen to follow the Stephenson tradition, nevertheless I found that the statistically most precise factors were the most fascinating. Furthermore, Stephenson (1953b) has pointed out that if the results look interesting using the principle component analysis Varimax route, then it makes sense to use them.

As I am particularly interested in exploring the broadest range of diversity, having compared outputs I chose to retain seven factors. Principle component analysis maximises variance and through this the factors group key participants on different factors, which makes for a more nuanced analysis than would be obtained through three or four factors. Hence, seven inter-subjective or shared views were obtained as 'each factor provides an image of the world that is commonly held.' (Brown, 1993a, p33).

4.8(iii) Significance in this Study

Using the text book definition (Mckeown & Thomas, 1998) of significance, discussed in the previous chapter, where, for sixty items, a coefficient of >0.33, is significant at P<0.01. However, I found that this led to a lot of confounding; referring to a Q sort that is significantly loading on several factors. Therefore, raising the coefficient level was necessary. I examined various criteria to indicate significance, such as a coefficient of >0.45 on one factor and <0.35 on other factors, along with several other possible solutions. (The reader is referred back to the debate regarding significance in 3.3(xv)). However, these repeatedly resulted in a loss of key people; those that I found theoretically interesting. It also resulted in a large proportion of factors having only one person exemplifying them.

An alternative method to determine significance is given by the PQ method software programme (Schmolk, 2002). It flags an individual's Q sort as significantly loading on a factor, aiming to include as many Q sorts as possible and to avoid confounding. To do so it uses the following algorithm and instructions:

> 'The pre-flagging algorithm is designed to flag 'pure' cases only, according to the rule: Flag loading a if (1) $a^2 > h^2/2$ (factor 'explains' more than half of the common variance) and (2) a > 1.96 / SQRT(n items) (loading 'significant at p < 0.05').' (Schmolck, 2002).

In email (15/12/2009) Schmolck clarified, thus:

> 'Where a is the factor loading, a^2 equals a sort's (person's) proportion of variance explained by the factor. If you add up a sort's a^2 for every factor you get the person's communality, h^2, the proportion of variance explained by all (the "common") factors together.'

In other words, in PQ method an additional criterion is applied beyond the textbook definition of significant loading given previously. I was interested to apply this other dimension of communality and hence looked at the output arising through determining significance from this algorithm. I judged, that using flagging according to the PQ method algorithm, gave the most interesting mixture of sorts on each factor in relation to interpretability. Hence, it was applied in this study. (This is ultimately tested by the interpretability of the factors as seen in the following chapter).

The eigenvalues for the unrotated factors are all greater than one. The eigenvalues for the seven rotated factors found in this research are all also well above one as shown in the table below.

Table 7: Calculation of Rotated Factor Eigenvalues

Factor	Variance (participants/100)	Eigenvalue
1	15 (45/100)	6.75
2	13 (45/100)	5.85
3	8 (45/100)	3.60
4	9 (45/100)	4.05
5	6 (45/100)	2.70
6	5 (45/100)	2.25
7	8 (45/100)	3.60

4.8(iv) The Seven Factors

The seven factors explain 64% of the variance. However, the percent variance that each factor explains is not significant in Q. That is, a factor's strength is not related to the amount of variance that it explains. The variance here is a product of the purposively selected participants or what is known as the P set. Of interest is describing and explaining the range of factors not their relative strength.

All but one factor has two or more participants loading on it, the exception being factor six which had only one. I initially considered this factor worth exploring as in each and every factor extraction and rotation carried out, one participant, number ten, repeatedly stood alone and very strongly on one factor. Therefore theoretically this person's views could be of interest as they represent one potentially unexplored aspect of the diversity (the following chapter explains why this was not the case). The factor loadings of the exemplars on each factor are shown in the table below. See Appendix 6 for all participant's loadings on factors.

Table 8: Summary of Exemplifying Q Sorts for Each Factor

Factor	Loading[†]	Participant	Demographics
1	0.82	17	Chinese; Female; Young; Practiced in China only
	0.69	11	Chinese; Female; Middle aged; Practiced in China only
	0.67	6	Chinese; Female; Middle aged; Practiced in China only
	0.67	38	Chinese; Male; Middle aged; Practiced in China & West
	0.66	8	Chinese; Female; Middle aged; Practiced in China only
	0.66	34	Chinese; Male; Middle aged; Practiced in China & West
	0.66	2	Chinese; Female; Young; Practiced in China only
	0.61	23	Chinese; Male; Middle aged; Practiced in China only
	0.52	15	Chinese; Male; Young; Practiced in China only
	0.46	16	Chinese; Female; Young; Practiced in China only
2	0.74	21	Chinese; Male; Middle aged; Practiced in China only
	0.67	35	Western; Female; Middle-aged; Practiced in West only
	0.65	26	Chinese; Male; Middle aged; Practiced in China & West
	0.65	19	Western; Female; Middle-aged; Practiced in China & West
	0.63	33	Western; Female; Middle-aged; Practiced in West only
3	0.72	12	Chinese; Male; Middle aged; Practiced in China & West
	0.62	14	Chinese; Male; Middle aged; Practiced in China only
	0.59	13	Chinese; Male; Young; Practiced in China only
4	0.71	28	Chinese; Male; Old; Practiced in China only
	0.67	45	Western; Male; Middle-aged; Practiced in West and China
	0.64	32	Western; Male; Old; Practiced in West only

5	0.72	20	Western; Male; Middle aged; Practiced in West & China
	0.53	24	Chinese; Male; Old; Practiced in China only
6	0.74	10	Chinese; Male; Middle aged; Practiced in China & West
7	0.72	40	Western; Male; Middle aged; Practiced in West & China
	0.63	43	Western; Female; Middle-aged; Practiced in West and
	0.60	36	Western; Male; Old; Practiced in West only
	0.51	42	Western; Female; Middle-aged; Practiced in West only

† Factor loadings rounded up to 2 decimal points

4.8(v) Factor Z Scores

Factors are Q sorts made up of combining the Q sorts of all those loading on the factor. Factor interpretation is based on these idealised Q sorts. To reiterate, factor loadings represent level of agreement with the factor, 1 being total agreement and -1 total disagreement. Factor Z Scores - are normalised scores that allow for comparability of statements across factors. That is, as factors contain different numbers of participants the statement totals will vary. For example, factor 1 has 10 participants whereas factor 5 has 2 participants. Normalised Z scores remove the effect of different participant numbers and their different factor weights (Brown, 1980). Factor scores and factor loadings are the outcomes of rotation of the factors. These are the basic tools for factor descriptions (Niemeyer, et al., 2003).

The table above shows that participants 17, 11, 6, 38, 8, 34, 2, 23, 15, 16 have high loadings on factor one and low loadings on other factors. This indicates that these participants define this factor and are used to compute factor scores for the model Q sort. Their Q sorts are combined to produce a factor, which is an idealised Q sort representing their combined views. However, as each load differently, e.g. participant 17 has the highest loading at 0.8175 and participant 16 the lowest at 0.4628 the Q sorts are weighted to reflect these differences and some thus carry more weight in influencing the factor. It is unnecessary for my purposes to fully explain the mathematics involved, as this can be sourced elsewhere (Brown 1980), as long as the principle is understood. That is, that the factor is made up of the weighted exemplars of a factor. If there is only one Q sort associated with a factor then

that Q sort is the factor, as with factor 6 in this study. The factor scores or z scores allow for, not only the composition of the factor or model Q sort but also determining which items distinguish any two factors. Hence are essential in the subsequent interpretation. Again the detailed mathematics are not of interest here, these are carried out automatically by the software.

It is interesting to consider Q sorts that confound, or to use plain language, sorts that are significant on several factors Take for example participant 22, the oldest participant in this study, significantly loading on factor two (0.5845) and factor five (0.5017). During manual rotations solutions were sought that maximised this sort on one factor. However, it did so at the expense of two other theoretically interesting people, who then became significant on two factors rather than exemplars on one. This was one of the reasons for choosing the principle component analysis and Varimax rotation solution with seven factors retained as the most interesting. Where there are several people loading significantly on two factors it indicates that they are not completely independent factors (Shemmings, 2006). This is further discussed in the analysis and discussion.

Correlations of factor scores are given in the table below, whereby it is possible to compare factors as the figures highlight degrees of similarity and difference. (These are further presented graphically in the following chapter).

Table 9: Correlation Between Factor Scores

	1	2	3	4	5	6	7
1	1.0000	0.3630	0.4980	0.4262	0.1677	0.2469	0.4998
2	0.3630	1.0000	0.0987	0.5110	0.4179	0.1153	0.4151
3	0.4980	0.0987	1.0000	0.1220	0.0886	-0.0331	0.4276
4	0.4262	0.5110	0.1220	1.0000	0.1311	0.2508	0.4189
5	0.1677	0.4179	0.0886	0.1311	1.0000	0.1114	0.1311
6	0.2469	0.1153	-0.0331	0.2508	0.1114	1.0000	0.0733
7	0.4998	0.4151	0.4276	0.4189	0.1311	0.0733	1.0000

The factor scores for each factor are given below in the table below. These allow for reconstituting each factor in the grid format of a Q sort, for this study, 60 items placed -5 to +5.

Table 10: Factor Scores for Each Statement

	1	2	3	4	5	6	7
1	-4	0	-1	2	-5	0	1
2	-2	0	-1	-3	-4	0	0
3	2	-3	0	1	-5	1	1
4	-5	-4	3	-2	-4	-2	-1
5	3	-1	-2	2	-2	0	1
6	0	3	-2	-1	-3	1	-4
7	-2	0	-4	0	-3	0	-2
8	-3	1	-2	3	-3	-1	1
9	1	4	-5	5	-4	3	2
10	0	-3	0	1	-3	-2	0
11	2	-4	2	-2	-3	-4	1
12	-3	0	0	-4	-3	-3	0
13	0	-1	1	1	-2	-2	1
14	5	-1	5	4	0	5	4
15	3	1	4	1	-1	-3	4
16	-4	1	-1	0	-1	2	3
17	1	-2	2	-3	-1	1	0
18	0	-2	-3	-5	0	1	4
19	2	-3	2	1	-5	0	-3
20	0	1	-3	-2	-1	0	-1
21	-4	-3	-5	0	-1	3	-5
22	4	-1	5	4	-1	-1	2
23	-1	2	0	1	-2	-1	2
24	0	5	1	3	5	-3	-2
25	4	3	0	2	-1	-2	-3
26	0	2	1	3	5	5	0
27	-1	-3	-1	-1	-2	2	-5
28	-1	1	4	-4	0	2	2
29	-4	-5	2	-1	-1	1	-2
30	0	-5	0	-3	-1	-3	-2
31	1	2	-3	5	0	3	1
32	3	3	4	-1	0	4	-2
33	1	-2	1	0	0	1	-1
34	1	2	4	0	1	-2	0
35	5	4	3	3	2	1	3
36	2	3	-1	-5	3	2	2
37	2	0	1	-2	1	4	-1
38	-2	-2	2	-3	1	-1	-3
39	-1	-2	3	-2	1	-2	1
40	-5	-1	0	-1	2	-5	-1
41	-1	-4	-4	-1	1	4	-1
42	-3	0	-2	-2	1	-4	-3
43	-3	0	-2	-2	1	-4	-3
44	-1	3	-3	2	-4	-1	3
45	-1	-1	-2	-4	0	-4	-4
46	-5	1	-3	1	3	-5	-1
47	2	5	1	2	4	-1	4
48	-1	1	0	0	1	2	3
49	4	-1	-2	4	2	5	-1
50	1	-2	2	-3	-2	0	0
51	4	5	3	5	3	-1	5
52	5	2	5	4	4	3	5
53	1	4	1	2	3	2	2
54	1	0	-1	-1	1	-4	0
55	3	1	3	1	3	-5	3
56	-2	2	-4	-1	4	1	-4
57	-2	0	-5	0	3	0	-5
58	3	4	1	3	5	3	5
59	-3	-4	-1	-4	2	-1	-4
60	-2	-5	-4	-5	2	-3	-2

4.9 Ethics

In 2006 ethical approval was obtained from the University of Westminster's School of Integrated Health, research ethics committee. On the first fieldwork trip in Beijing, in the same year, ethical approval was also given by the CACMS.

4.9(i) Ethics Cross Culturally

As is usual in the UK, the ethics committee specified that participants' details must remain confidential. However, in contrast to the UK in China it was considered unethical to keep participant's names confidential. Hence, in gaining ethical approval from CACMS it was stipulated that I must identify all doctors by name in the thesis. Hence the dilemma of how to negotiate a path that satisfied both cultures arose at the very outset of this project. These views on the ethical behaviour of a researcher on first inspection appear incompatible. However, a simple solution was found that made use of the UK convention of acknowledging by name those who have played a role in the creation of the thesis. I decided to add here the names of doctors whom CACMS gave me access to. In the body of the thesis originators of the statements and opinions will largely remain confidential, thus combining the ethical requirements of both the UK and China for health research.

When interpreting the various points of view explanation will at times be related to participants' unique backgrounds and in a small sample size this may at times make it easy for their identity to be known to some readers, particularly any that themselves took part; Q sorting in China was often undertaken in groups and several group interviews were carried out. It has been pointed out that informed consent through the doctor patient relationship does not exist in China (Cong, 2004). Instead it is mediated through the family, reflecting deep rooted cultural values. It is not surprising then that the researcher participant relationship is also mediated by the institution, or more specifically the head of department in which they work. It

should be noted, however, that what is considered ethical is not solely a matter of culture, but varies within a culture according to academic discipline as well. For example, the confidentiality of participants observed in ethnography is often not concealed and this is considered normal ethical practice.[63] This is because using real names is cleared with the participants through asking them beforehand and discussing the write-up with them.

4.10 Summary

Items for this study are statements. The statements, not the participants are the sample in Q methodology. Sixty statements were selected from the concourse, based on their epistemological diversity. The range of diversity was evenly represented, allowing for minority voices to be heard. Both positively and negatively voiced statements were balanced in numbers. Forty five participants were selected using purposive, snowball and convenience sampling. The aim of which was to include both Chinese and Western practitioners practicing in China or the West. Practitioners were included whose ages were, <30, 30-55 and >55. This spread allowed for practitioners with different levels of experience and training backgrounds to be included. Having looked at the data using Centroid factor analysis with manual rotation, I found that the most interesting solution, based on interpretability, was achieved through principle component analysis and Varimax rotation. This provided a seven factor solution. The seven viewpoints are the subject of discussion and explanation in the following chapters.

63 See SCHEID V. Chinese Medicine In Contemproary China: Plurality & Synthesis. Duke University Press, 2002. and FARQUHAR J. Knowing Practice The Clinical Encounter of Chinese Medicine. Boulder: Westview press, 1994.

Section Three – Analysis, Discussion and Conclusion

Chapter Five: Results and Analysis, Part One

5.1 Introduction

In this chapter I will present the results of the study factor by factor and discuss these in relation to each other. In the following chapter, I will consider how the multiplicity of knowledge manifesting in these enactments is managed in Chinese medicine practice and consider the implications of power differentials between each factor.

Describing each factor is first a matter of clarifying what is unique about that factor. That is, gaining a narrative account of what that factor is saying; the story it holds, through which it can be identified as a separate inter-subjectively shared account. Nevertheless, all factors stand in relation to each other, so in describing each one it is necessary to consider them in relation to all others. However, comparisons will only make sense after each factor has been described. Therefore factor 1 is presented alone as far is possible, and then factor 2 can be described and compared with the first and so on.

Through this research journey seven distinct Chinese medicines are revealed; though one is not interpreted for reasons that will become evident. Each one negotiates the complexity of knowledge in differing ways. These are considered in relation to the context in which they function and are formed, taking into account that the search for knowledge does not simply uncover pre-existing 'objects'; it actively shapes and creates them. In order to place each in context I will draw on Foucault's (1989) ideas that knowledge far from being neutral, acts as a tool of social control and legitimisation. In addition, I apply Law's (2004) method assemblage as an aid to gaining a fully gestalt interpretation of each factor. Finally, I will reflect on my own influence as researcher on the outcomes.

However, first, before the analysis commences, I will explain why I find the term ‘Enactment’ preferable to ‘Factor’ in naming the findings of this Q study. Then I will clarify how the participants in this study can be considered a community. That is, what they have in common which makes them suitable for investigation with Q method.

5.2 Factors are Enactments

In Q studies the results are usually labelled as ‘Factors’, or ‘Factor Arrays’. However, instead I purposively choose the term ‘Enactment.’ This term conjures up the active influence of the practitioners in producing and reproducing Chinese medicine. It emphasises the dynamic nature of realities, which are endlessly being produced, with meaning tied to the processes of this production and reproduction (Mol 2002). It is particularly relevant here as I want to emphasise the ever changing nature of Chinese medicine; changing according to context as well as time. It is also preferable to referring to ‘Types,’ or ‘Versions’ of Chinese medicine practices. The latter imply evolving modes of practice as if they are being refined and ever better than what went before. They also suggest that those practices are independent of the practitioners in coming into being. I intend Enactment to capture how ‘knowledge entails practices and practices produce knowledge.’ (Farquhar, 1994, p225).

I am using it here to mean:

> ‘The claim that relations, and so realities and representations of realities (or more generally, absences and presences) are being endlessly or chronically brought into being in a continuous process of production and reproduction, and have no status, standing or reality outside those processes.’ (Law, 2004, p159).

It seems to me that Enactment shares some similarity with Foucault's understanding of discourse. In that discourses grant individuals identity and agency in relation to the knowledge and practice that they (subjects) produce and are subjected to. But enact has the benefit of not carrying the baggage of discourse (discussed in Chapter Three). It can also be seen as a little like performance or performativity. However, the former also carries baggage of association with theatrical realms. Furthermore, the latter has been challenged for upholding the separation between thought and action (Nash, 2000), which I argue against throughout this thesis. In addition, enact as a term does not imply necessarily following a script, whereas performance does. It is well suited to Q method, with its emphasis on combining subject and context; in Q the interpretation is made in relation to the setting, with participants seen as carriers of culture (Stenner, et al., 2008). Here the practitioners enact that carried culture, moulding it as they are moulded by it.

Mol (2002) coined the term Enactment in her work aimed at breaking up the unitary systematicity of biomedicine, applied to Chinese medicine, it assists a similar end; the mapping out of diversity. Furthermore, it avoids the quantitative associations with the term factor, which aids in reading the analysis as a flowing narrative. In addition, a quantitative researcher would no doubt be perplexed as to why the term factor is used when statistically the factors are derived through principle component analysis; a data reduction technique that can be defined as separate to factor analysis.

5.3 The community

In this study attaching the label of Chinese medicine to what one does is the binding force. All participants in this sense belong to one ‘community’ of practitioners. Here community is used in the sense, not of having a physical location, but of being a group of people with a commonly termed practice. Now the purpose here is to look at multiplicity of practices so what is this common practice? I mean by this a group of practitioners of Chinese medicine that has knowledge of the tools of both herbal medicine as well as

acupuncture. This is to distinguish this community from those who practice acupuncture alone. For if the latter had been included and indeed some acupuncturists would say that they practice Chinese medicine, then the concourse would have excluded all communication referring to herbs. Statements deriving from a concourse relevant to acupuncturists would also then exclude practitioners primarily practising herbal medicine. This is because in concourse theory each statement needs to be self referent for all participants (see Chapter Three for further details).

The community I refer to is now a global one combining knowledge of both acupuncture and herbal practices, but it is undoubtedly a construct with fuzzy edges. As such it is likely to create diversity. Opening up the potential for factions potentially in conflict; engendering different lineages of Chinese medicine. The enactments realised from this study will reveal that the practice of contemporary Chinese medicine has many different paths, crossing, influencing and creating each other. The community of Chinese medicine practitioners can be considered an imagined community (Anderson, 2006). Practitioners of the imagined community may not meet fact to face, but can be connected through texts. Furthermore, it is their use of similar technologies, practices and focus on patients, that creates a shared identity.

Whilst Q has previously been used specifically to compare opinions across cultures (Williams et al., 2001), it is not the main focus here. The focus of this study is to map out diversity. If diversity does divide along ethnic and geographic divisions it will be of interest, though this is not a search for a ‘Chinese’ Chinese medicine in contrast to a ‘non-Chinese’ one. I instead aim to unravel an altogether more complex picture. It has been claimed that knowledge models are enframed along cultural lines, namely Western and East Asian cultural lines (Unschuld, 1987), which would suggest that the data will show a distinct breakdown into Chinese and Western viewpoints. However, I hypothesise that the realities of practice cuts across such

simplistic divisions. Furthermore, in Q the participants are not a representative sample of Chinese or Westerners, but are, as explained in the previous section, chosen strategically for differences of opinion. Interpreting any such divisions that arise need to be considered therefore in that light.

5.4 Labelling the Enactments

In order to clearly convey the meaning of each Enactment I am using two tools; labelling and creating a slogan for each. First labelling each Enactment provides an immediate insight into the practice it describes. Furthermore, it is customary in Q studies to apply labels that encapsulate the meaning of each Enactment (McKeown & Thomas, 1998). However, to avoid an essentialist interpretation second order constructs should not be added to these (Kitzinger, 1984,), such as 'the authentic Chinese medicine view.' Labels are not intended to reify Enactments, which are neither discrete nor fixed. Second, giving a slogan to each, based on a variation of a well known phrase, points to the relatedness of each Enactment whilst also highlighting the differences. For each Enactment I have chosen to take Mao's famous phrase that sums up his vision for Chinese medicine:

> 'Chinese medicine is a great treasure house, we should strive to develop and improve it, *zhongyiyao shi yige weida de baoku, yingdang nuli fazhan jiayi tigao* 中国医药是一个伟大的宝库，应当努力发展加以提高.'

I use the first half of this phrase as the beginning of a new slogan encapsulating the meaning of each Enactment. This seems pertinent as this slogan adorns the entrance of China's oldest Chinese medicine research institute, the CACMS in Beijing, where I carried out some of this research and it was frequently quoted to me to validate the value of Chinese medicine by doctors there. Mao's vision for Chinese medicine in the 1950's was to

integrate it into biomedicine. This was implemented through the policy of training biomedical doctors to use Chinese medicine, through which, he envisioned, one new medicine would emerge. These enactments will reveal both, if such a vision has materialised, as well as, what other visions of contemporary Chinese medicine exist.

5.4(i) The Enactments

The seven Chinese medicine Enactments that are realised through this research are:

Enactment One: A Modern, Independent and Equal Medicine

Enactment Two: A Classical Medicine for Modernity

Enactment Three: A Biomedical Resource

Enactment Four: A Grand Narrative

Enactment Five: A Way of Being

Enactment Six: A Dynamic Tradition

Enactment Seven: A Pragmatic Blend

Each is a depiction, at a moment in time, of Chinese medicine practice. The purpose here is not to reveal which of these is the 'real or true' Chinese medicine practice. The intention is to move away from such a concept. None of these Chinese medicines has privileged ownership of a correct or authentic version; each is valid in its own context, for as ethnographic literature has shown, there can be no single Chinese medicine. However, every Chinese medicine correlates with each of the others. Below the statistical correlations between the enactments are discussed, followed by a detailed description of each.

5.5 Correlation Between Enactments

Correlations between enactments indicate how distinct each is from another. These are listed from highest correlation to lowest in the table below. There is some shared ground between each Enactment but to varying degrees. This points to common areas in debate that can be usefully exploited to resolve disputes; hence the recognised value of Q methodology in the realm of political science and human geography (Bublic & Sitaraman, 1998; Dryzek, 1990; Hooker Clarke, 2002), both disciplines that require an understanding of shared viewpoints. These then allow for engagement across groups with otherwise conflicting opinions. Whilst in the realm of Chinese medicine contested areas, which are dynamic and changing, offer potential pathways to enter different perspectives through shared ground. It thus becomes evident that this study offers a potential contribution to the fields of education, regulation and research of Chinese medicine, as well as to the individual practitioner in understanding their clinical practice. One example of the application of Q methodology in Chinese medicine would be in designing research that can meet the diverse needs of funding bodies, legislators and practitioners.

Table 11: Correlations Between Enactments; Most to Least Correlated

2 and 4 (0.5110);
1 and 7 (0.4998);
1 and 3 (0.4980);
3 and 7 (0.4276);
1 and 4 (0.4262);
4 and 7 (0.4189);
2 and 5 (0.4179);
2 and 7 (0.4151);
2 and 1 (0.3630);
4 and 6 (0.2508);
1 and 6 (0.2469);
1 and 5 (0.1677);
5 and 4 (0.1311);
5 and 7 (0.1311);
2 and 6 (0.1153);
3 and 4 (0.1120);
5 and 6 (0.1114);
2 and 3 (0.0987);
3 and 5 (0.0886);
7 and 6 (0.0733);
3 and 6 (-0.0331).

From the table above it is immediately clear that Enactment Three has little in common with Enactments Six, Five, Two and Four. In contrast Enactment Three, One and Seven have a lot more in common; Enactment Four provides the pathway between this grouping and the latter; Two and Four (0.5110) and One and Four (0.4262) and Four and Seven (0.4189). Enactment Seven also plays such a bridging role through Two and Seven (0.4151). It is these types of intricacies that immediately bring patterned knowledge to mind, both as a visual concept and epistemologically. The interconnections between diverse opinions map out into elaborate webs, as seen in Figure 5 below:

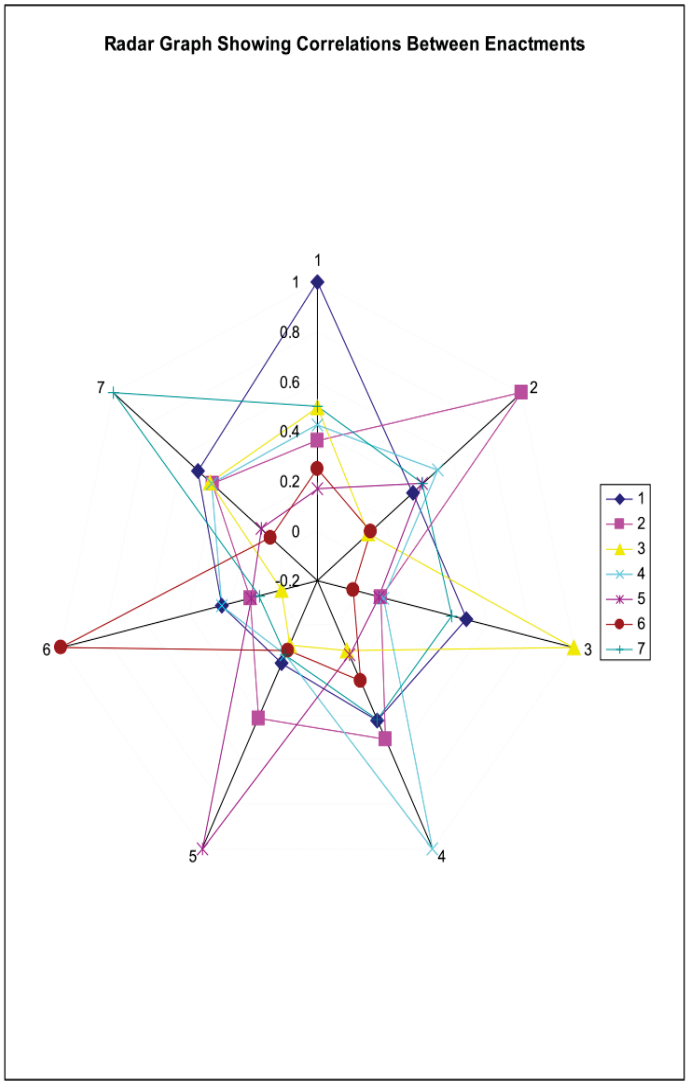


Figure 5: Enactment Correlations.

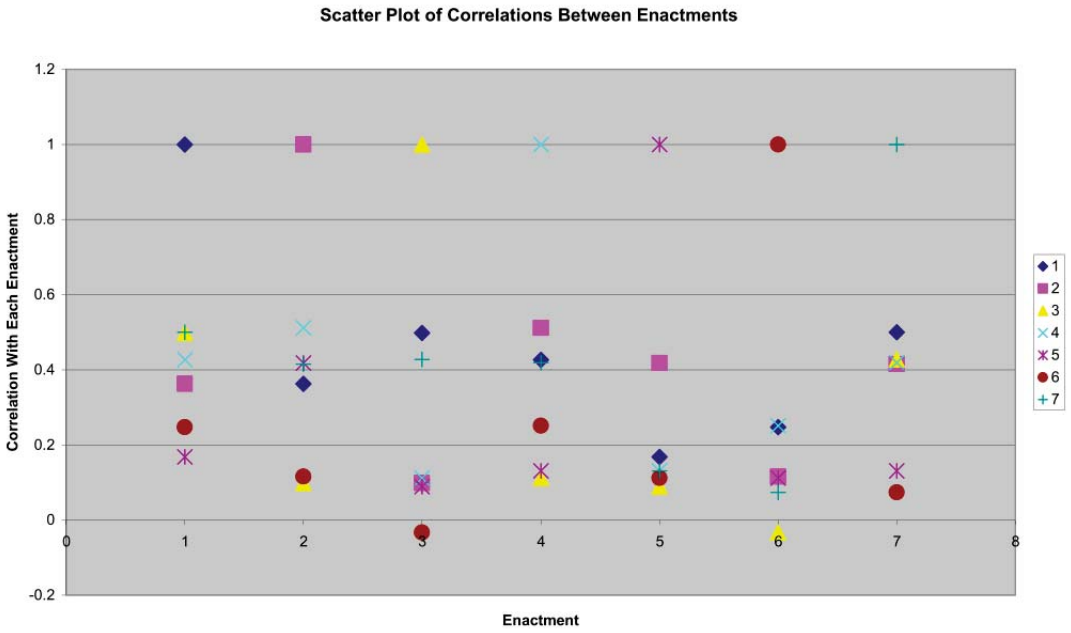


Figure 6: Scatter Plot of Correlations Between Enactments.

Q brings structure to meaning in much the way that any other theoretical analysis does. The purpose of using statistics here is to highlight groupings and show where similarity and differences lie. The description now returns to the discourse that originated from the concourse. The descriptions rely on the words of the participants themselves, which form the statements of the Q sort. It is for this reason that Q is said to reduce the level of interpretation needed by the researcher. Some claim that this removes the influence of the researcher, to the extent that whoever interprets the data will result in the same conclusions (Watts & Stenner, 2005). Given the Enactments, it is the statements that are the basis of analysis, so different people will come up with the same understanding. In my experience of looking at others data this is largely true. However, it is ignoring that much debated process in arriving at the data; choosing the numbers of enactments to retain, rotate and how to determine significance. I suggest that it is at that stage that the researcher's own assumptions come more clearly into play. It is common, for example, to find in American Q studies (Storch & Fischel, 2006; Wolf, 2010), two or three enactments emerging, whereas in Britain, studies (Dell & Korotana, 2000; Kitzinger, 1987) with more than four enactments are common. These

differences reflect the broadly different aims of Q studies in different cultures (Stainton Rogers & Stainton Rogers, 1990).

In arriving at seven Enactments, my own aims of seeking multiplicity are evident. Having tried almost every permutation of factor analysis and rotations, retaining various numbers of factors; the final solution is clearly influenced by what I was looking for or find more interesting. The data is not invented, or in any way less true as a result. However, it retains my influence as an integral part; the enactments do not exist in isolation from the researcher.

As well as the actual statements, interview material is drawn upon to support the interpretations given below. In addition, participants' comments, collected in booklets after sorting, were useful in understanding the meaning intended. Some participants wrote extensively in these booklets, commenting on every item, others left them almost blank.

Once analysis of the enactments was complete those people who were exemplars or loaded significantly on one or more enactments were asked, where possible, for further comments on the interpretation. I asked them if they felt that this description resonated with them; did they feel represented by it. Most such questioning was via email, though several participants were contacted in person and the Enactment discussed with them. There was a surprising level of agreement, though some comments did provide new light. In one case I was about to present the description of the Enactment to one exemplar when he summed up his view of how he practised, saying 'basically I am a pragmatist,' he was an exemplar on Enactment Seven: A Pragmatic Blend.

Hence, analysis can be seen to be an iterative process, returning to the data with additional information and understandings, until a fuller comprehension of that Enactment rings true. The latter phrase ‘rings true’ serves to support the view that the researcher is always part of the interpretive process in a Q study. Despite Q often being presented as overcoming this bias (Brown, 1980), the naïvity, or idealism of such a view has previously been documented (Eden et al., 2005) and was discussed in Chapter Three.

Where a Q sort item is used in text it is prefixed with its number and suffixed with its rank. Whenever a rank is given it appears in brackets with the corresponding + or – sign. The full item, rather than its number alone, is used each time to aid in reading the interpretations as a flowing narrative. This avoids the need to refer to the list of statements, which I have found make the reading of some Q studies extremely staccato. I write in full, numbers in text except when they refer to the number linked to the label of each Enactment. I will first describe each Enactment, one by one. In each the Q sort grid is presented followed by listing; those statements that are ranked the highest; those ranking higher than on other Enactments; those statements that are ranked lowest and those lower than on other Enactments. In addition, statements that are considered distinguishing form part of the results that are analysed. These are statements that are placed in a significantly different position relative to the position in other Enactments. This is the raw data that is then presented as a narrative. The reason for including this ‘raw data’ is that experienced Q methodologists reading this can from it immediately gather an understanding of the Enactment. Where statements in the neutral zone shed light on the analysis these are included also. Thus, presence, absence and otherness serve as an explanatory tool for the narrative. This will then make the following step of comparing them relative to each other easier to follow. For reference, a complete list of statements appears in Appendix 4.

Each Enactment of Chinese medicine exists at the social level; it is a manifestation of inter-subjectively shared opinions. Certain people are found to exemplify the different types. That is, their individual opinions are very close to the type they exemplify. However, these people are seen as carriers of that discourse rather than as it belonging to them as individuals; the stories do not belong to the story teller (Stainton Rogers & Stainton Rogers, 1990). The demographics of such exemplars can shed light on influences that contribute to making that type possible.

5.6 Enactment One: A Modern, Independent and Equal Medicine

This Enactment of Chinese medicine I summarise as: Chinese medicine is a treasure house that only we (Chinese medicine doctors) can select from and offer to biomedicine.

5.6(i) Demographics

Ten participants are exemplars on this Enactment; they significantly agree with only this one Enactment. They comprise four males and six females. Four are in the <30 age group and six in the 30-55 age group. There were no Westerners on this Enactment. Two were Chinese people living in the West, the rest Chinese in China. A further ten people are significantly associated with this Enactment but they also significantly associate with others and hence their Q sorts do not contribute to the making of this Enactment, though they will have empathy with it. This serves to demonstrate the complexity within the data of a Q study. Of these ten all but one are Chinese. The majority of these doctors worked within state sanctioned hospitals in Beijing, with some involved in clinical research.

This Enactment correlates most closely with Enactment Seven: A Pragmatic Blend (0.4998), followed by Enactment Three: A Biomedical Resource (0.4980), then Enactment Four: A Grand Narrative (0.4262), Enactment Two: A Classical medicine for Modernity (0.3630), Enactment Six: A Dynamic

Tradition (0.2469) and has least correlation with Enactment Five: A Way of Being (0.1677).

Table 12: The Q Sort Grid for Enactment One

	Least agree 最不同意				Neutral 无意见			Most agree 非常同意			
Score	-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5
Number of cards	3	4	5	6	8	8	8	6	5	4	3
	4	1	8	2	23	6	9	3	15	22	52
	40	16	12	7	27	10	17	11	32	25	14
	46	21	42	38	28	13	31	19	5	49	35
		29	43	56	39	18	33	36	58	51	
			59	57	41	20	34	37	55		
				60	44	24	50	47			
					45	26	54				
					48	30	53				

Table 13: The Basis for the Analysis of Enactment One

Highest ranking statements (+5): 14. In clinical practice I use whatever works, no matter from where it originates. 35. Biomedical tests e.g. X-rays act as assistants in the diagnostic process. 52. The two systems of medicines can make reference to each other from their unique way of thinking about a particular problem the different angles reveal different things for us in clinic.
Statements ranked higher than any other Enactment: 3. The biomedical diagnosis of rosacea leads me directly to choose specific herbs known to treat this condition (+2). 5. Like Chinese herbs, biomedical drugs have energetic actions (taste, meridians, nature, flavour) and these cannot be understood just by their biochemistry (+3). 25. A biomedical diagnosis will not influence my treatment it is only the patient's observable changes that matter (+4). 35. Biomedical tests e.g. X-rays act as assistants in the diagnostic process (+5).

Lowest ranked statements (-5): 4. My starting point is always the biomedical diagnosis. 40. Biomedicine understands the workings of the body Chinese medicine can only know a part. 46. Using biomedical information in Chinese medical practice is like shopping for apples and coming back with pears.
Statements ranked lower than any other Enactment: 4. My starting point is always the biomedical diagnosis (-5). 16. My practice of Chinese medicine is based on what biomedicine doesn't treat well (-4). 48. There is a clear distinction between Chinese medicine and biomedicine in orthopaedic practice, biomedicine treats only the muscles and bones whilst Chinese medicine relies on channels and *qi* (-1).
Distinguishing statement: 16. My practice of Chinese medicine is based on what biomedicine doesn't treat well (-4).

5.6(ii) Analysis

Whilst all the enactments are concerned with identity, this one, strikingly, is about practitioner identity and status, reflecting the struggle that exists within China for Chinese medicine to achieve equal status with biomedicine. For example, of students wishing to study medicine, those with the highest

grades are sent to study biomedicine, whilst students with lower grades are sent to study Chinese medicine. Thus, this Enactment is concerned with Chinese medicine practitioners attempting to reclaim the power which they believe society has afforded to biomedicine. It represents a striving to be seen as equals to biomedical doctors. It does so through implying Chinese medicine doctors' superiority. There is an acceptance of biomedical knowledge and techniques, but without a need to rely on using them. Their use in practice does not appear to raise any theoretical problems. In this Enactment the two medicines are viewed as complementary, making up a whole; however, the ability to know this whole is placed solely within the sphere of Chinese medicine doctors. As 'the account a person produces depends very much on the use to which he wants to put it' (Antaki & Fielding, 1981, p38), we can see here that the use is to redress biomedicine's hegemony that allows for status to be such an important issue.

Redressing the power differential between the systems of medicine is achieved through privileging Chinese medicine's knowledge, freeing it from reliance on the tools that biomedical doctors have to rely on and which the latter can draw on as their only tools. This is seen by the placement of the following firmly as presence:

25. 'A biomedical diagnosis will not influence my treatment it is only the patient's observable changes that matter' (+4).

The implication being that a biomedical doctor would not have access to Chinese medicine's 'observable changes' and would have therefore less information to draw on in making a diagnosis. Also a biomedical diagnosis is not taken as complete on its own.

This privileging of Chinese medicine knowledge does not restrict it from at the same time utilising biomedical knowledge, as seen in these statements that are given presence and absence respectively:

22. ‘The more Western medicine I know the more I use it in my Chinese medicine practice’ (+4)

And:

21. ‘I just discard Western medical information’ (-4).

Although able and willing to use biomedicine’s methods, they are presented as mere aids to Chinese medicine. This is made explict in the following item which is given presence with the highest ranking score:

35. ‘Western medical tests e.g. X-rays act as assistants in the diagnostic process’ (+5).

There is the implication that these doctors have unique access to Chinese medicine knowledge. Furthermore, biomedical doctors cannot understand such knowledge, though conversely Chinese medicine doctors can access biomedicine’s knowledge. The following is clearly absence in such a scenario:

29. In clinic I don't need *bian bing* (differentiation by disease) as biomedical diseases are a modern version of *bian bing* (-4).

In so doing it can be said to reinstate the relevance of their subjective interpretation in the clinical encounter. Whilst this Enactment correlates

closely with Enactment Three, which follows, it is their relation to this point that distinguishes them; in effect their difference hinges on whether the Enactment outlines ‘physician or medical technocrat’ (Ashworth, 2003, p39). This is further discussed below as the other enactments are explored.

The distinguishing statement is:

16. ‘My practice of Chinese medicine is based on what Western medicine doesn’t treat well’ (-4). Other placements are; Enactment 2 (+1); Enactment 3 (-1); Enactment 4 (0); Enactment 5 (-1); Enactment 6 (+2); Enactment 7 (+3).

By explicitly rejecting this statement out of presence, the danger of being seen as subservient to biomedicine is reduced. The implication is that Chinese medicine can treat that which biomedicine can treat; a stamping of equal authority. It is important to this Enactment for this statement to be absent for if it were to be given presence, it could be assumed that the practice of Chinese medicine would be eroded with every future success of biomedicine. Rebutting the assumption therefore, that if biomedicine can treat a condition then Chinese medicine is not needed, making Chinese medicine an adjunct of biomedicine, (which will be seen later in the description of Enactment Three: A Biomedical Resource).

The statements that are othered as they describe a reliance on biomedical information which this Enactment claims does not exist include:

18. ‘In Chinese medicine today I cannot use herbs without combining their pharmacological functions with their energetic effects’ (0).

And:

13. ‘Without using Western medical explanations I cannot communicate clearly with my patients’ (0).

Therefore, those adhering to this Enactment of Chinese medicine assert that Chinese medicine can, but does not have to use such information.

Othered for being obviously irrelevant for modern Chinese medicine that embraces biomedical knowledge is the statement:

20. ‘Clinical decisions cannot be based on anything but knowledge from the classics’ (0).

The importance of being seen as modern overrides any possible agreement with such a statement.

However, also othered is the statement:

24. ‘In practice I stick to Chinese medicine principles, using herbs according to their pharmacological makeup is simply not Chinese medicine’ (0).

For to be modern, pharmacology would need to be drawn on as well as Chinese medicine principles, hence this statement is repressed as it exposes a contradiction of this Enactment. If biomedical knowledge is needed, or in

other words Chinese medicine cannot stand alone, there is then reliance on it and hence, Chinese medicine is not independent as was earlier claimed.

In summary, the practitioners who comprised this Enactment include young to middle aged Chinese doctors only. It is concerned with identity and status, reflecting the struggle that exists in China for Chinese medicine to achieve equal status with biomedicine. An undeniably recurring theme seen in campaigns from the establishment calling for the removal of Chinese medicine, recounted in Chapter Two. Thus, this Enactment is concerned with salvaging power and status. The two medicines are viewed as complementary, making up a whole; however, the ability to know this whole is placed solely within the domain of Chinese medicine doctors, no doubt a politically strategic interpretation for Chinese medicine undergoing constant challenges within China's healthcare system.

5.7 Enactment Two: A Classical Medicine for Modernity

The summarising phrase I use for this Enactment is: Chinese medicine is a treasure house that once opened needs classical strategies for using the contents.

5.7(i) Demographics

Five participants exemplified this Enactment; two Chinese men and three Western women. Both men were in their fifties. One lived in England with excellent English language skills. The other lived in China with no experience of living in the West or using English. The women were in the 30-55 age group. Two lived in the West without Chinese language skills and one in China who could speak Chinese. In addition, thirteen people significantly loaded on this Enactment but were not pure loaders as they were also significant on other Enactments. Those living in the West were six females and three males, whilst there were two Chinese females and an

octogenarian male Chinese doctor living in China. This latter doctor was the oldest to take part in this study.

Hence both Westerners and Chinese are active in creating this Enactment of Chinese medicine. The Chinese doctors exemplifying this Enactment are a doctor who received apprentice style training during the Cultural Revolution and a radical critic of institutionalised education of Chinese medicine in China. Knowledge transmission for institutionalised Chinese medicine is based on the teaching models used in biomedicine. However, this situation has created tensions within the field of Chinese medicine. It has generated a great deal of debate with some (Liu, 2003) calling for a return to master apprentice programmes, a view that has resonated with many Chinese medicine practitioners in China. Whilst doing fieldwork many doctors, professors and students spoke of the need to reform the education system, to one more suited to Chinese medicine. It seems that this area is one where unusually open talk of the need for reform is acknowledged. Perhaps this is as it lays a step away from medical practice itself and thus less part of the doctor's daily activities.

There are others who align closely with this Enactment and also share the views of one of the other Enactments, for example the oldest participant an octogenarian agrees with both this and Enactment Five: A Way of Being. There are also many westerners in a similar situation in relation to this Enactment. They all share a reverence for the knowledge of classical texts. Such people could prove key when there is the need to communicate the knowledge of one Enactment to those on the other, here Two and Five. For they have a foot in each camp.

This Enactment correlates most closely with Enactment Four: A Grand Narrative (0.5110), then Enactment Five: A Way of Being (0.4179) and Enactment Seven: A Pragmatic Blend (0.4151), followed by Enactment One:

A Modern, Independent and Equal Medicine, then Enactment Six: A Dynamic Tradition (0.1153) and finally this Enactment has least correlation with Enactment Three: A Biomedical Resource.

Table 14: The Q Sort Grid for Enactment Two

	Least agree 最不同意				Neutral 无意见			Most agree 非常同意			
Score	-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5
Number of cards	3	4	5	6	8	8	8	6	5	4	3
	29	11	3	39	13	1	16	23	32	53	51
	30	4	19	33	43	42	55	52	25	35	24
	60	41	21	38	40	37	20	31	44	58	47
		59	10	50	49	57	46	56	36	9	
			27	17	45	12	15	26	6		
				18	5	2	8	34			
					22	54	28				
					14	7	48				

Table 15: The Basis for the Analysis of Enactment Two

Highest ranking statements (+5): 51. Chinese medicine treats the patient as they present even when biomedicine cannot find what is wrong. 24. In practice I stick to Chinese medicine principles, using herbs according to their pharmacological makeup is simply not Chinese medicine. 47. I cannot practice Chinese medicine without relying on classical knowledge.
Statements ranked higher than any other Enactment: 6. Biomedical information does not influence my actual prognosis (+3). 20. Clinical decisions cannot be based on anything but knowledge from the classics (+1). 47. I cannot practice Chinese medicine without relying on classical knowledge (+5). 53. It is a mistake to get lost in the details of biomedicine's knowledge as you obscure the broader picture that is Chinese medicine (+4).
Lowest ranked statements (-5): 29. In clinic I don't need *bian bing* (differentiation by disease) as biomedical diseases are a modern version of *bian bing*. 30. I don't rely on Chinese medicine's knowledge as much as biomedicine's. 60. I use ECG so palpation today in Chinese medicine practice is a mere symbol of being a Chinese medicine practitioner.

Statements ranked lower than any other Enactment: 14. In clinical practice I use whatever works, no matter from where it originates (-1). 29. In clinic I don't need *bian bing* (differentiation by disease) as biomedical diseases are a modern version of *bian bing* (-5). 30. I don't rely on Chinese medical knowledge as much as biomedicine's (-5). 33. According to Biomedicine hepatitis is a disease of the liver, so I look for Chinese medicine symptoms associated with the liver (-2). 52. The two systems of medicines can make reference to each other from their unique way of thinking about a particular problem the different angles reveal different things for us in clinic (+2).
Distinguishing statement: 14. In clinical practice I use whatever works, no matter from where it originates (-1).

5.7(ii) Analysis

In this Enactment biomedicine and Chinese medicine are seen as parallel rather than complementary knowledges. This Enactment is in dialogue with biomedicine, but does not seek to mimic it. As seen with the presence of:

53. It is a mistake to get lost in the details of biomedicine's knowledge as you obscure the broader picture that is Chinese medicine (+4).

And the manifest absence of:

29. In clinic I don't need *bian bing* (differentiation by disease) as biomedical diseases are a modern version of *bian bing* (-5).

Whilst both this and the former Enactment see Chinese medicine as the Enactment of knowledge unavailable to biomedicine, their epistemological stances are very different. Enactment One places the above statement in the same position as here; absent (-4) but its meaning in the context of the entire Enactment is different. It is rejecting the statement in order for *bian bing* to be considered as necessary as a biomedical diagnosis and thereby making Chinese medical doctors more important in gaining a complete diagnostic picture. Enactment One sees the two medical systems building one clear image of the total, whereas this Enactment allows for the possibility of multiple knowledges, which exist independently of each other.

Phenomenological knowing is expanded here to include, for example, looking at X-rays. This is because modern technologies are seen as belonging to modernity not biomedicine. One exemplar on this Enactment said in discussion:

> 'X-rays are just part of modern life, so naturally they can be used by Chinese medicine because Chinese medicine is part of modern life.'

Therefore, Chinese medicine in the modern era naturally draws on these technological advances. Thus, in this Enactment there is a redefining of Chinese medicine for the modern era. Unlike Enactment One, which seeks to be modern by rejecting certain aspects that are difficult to align with modernity, such as the classics and the immeasurable, this Enactment does not need to be seen as totally modern, or adhere to a reality based solely on

matter. Thus, modernity does not exclude the old. The difference is seen in the placements of the statement:

44. 'Chinese medicine is all about *qi* 气,[64] it is more useful to understand *qi* than to know anything of biomedicine' (+3).

This statement is othered by Enactment One and given presence by this Enactment. In Enactment One there is a pride in knowing biomedicine, it aligns itself with the knowledge of biomedicine, thereby limiting itself also to a reality based on matter. In contrast in Enactment Two there is more confidence in Chinese medicine's knowledge as an independent knowledge base suitable for the modern age. Furthermore, it does not depend on being seen as modern as opposed to traditional or classical, it comfortably utilises knowledge from the classics in a modern age. It gives presence to the classics to inform practice:

47. I cannot practice Chinese medicine without relying on classical knowledge (+5).

However, Enactment Two also encompasses modern developments. It does so in a unique way. Rather than placing itself constantly relative to biomedicine, it promotes the placement of Chinese medicine within modernity. Hence, absent is the statement:

18. 'In Chinese medicine today I cannot use herbs without combining their pharmacological functions with their energetic effects' (-2).

64 *Qi* 气 has been variously translated as life force, vital force and energy.

Suggesting that in this Enactment there is a redefining of Chinese medicine for the modern era that eschews certain biomedicine concepts but not modern technologies.

In summary, this Enactment depends on and is confident with classical Chinese medicine's knowledge and is comfortable to benefit from technologies associated with the modern age. It is created by a radical critic of institutionalised Chinese medicine in China, but who works within it, a Chinese doctor with both apprentice style and university training, along with Westerners who base their training on classical texts. There is a strong sense of confidence in their identity as Chinese medicine doctors whose knowledge is not an adjunct to biomedical knowledge, but a valid science itself.

5.8 Enactment Three: A Biomedical Resource

Mao's original phrase - 'Chinese medicine is a great treasure house, we should strive to develop and improve it,' could be interpreted as fitting this Enactment. Mao's vision was implemented through the policy of training biomedical doctors to use Chinese medicine, aiming to integrate it into one new medicine. However, I clarify the interpretation of the original thus: Chinese medicine is a treasure house to be plundered.

5.8(i) Demographics

The Enactment: A Biomedical Resource, is exemplified by several figures, all Chinese males 30–55 years living in China and who all speak English. The first is a lead researcher directing national research projects in China. He heads a department at the CACMS, a leading research institute in China. In this role he is an influential and powerful figure in the development of Chinese medicine in China. Before coming to this department he was employed by a pharmaceutical company. He had also spent several years living in the West and had been seconded by the government for Communist

party training. Such training is seen as a privilege and honour, given to those who are seen to faithfully follow the party line, to be trusted to promote government policies wholeheartedly. Although several of the other enactments show least correlation with this one, it nevertheless yields a lot of power particularly outside the sphere of Chinese medicine. Such as in the search for novel pharmaceuticals; the implications of this will be returned to in the next chapter. The second exemplar is a clinician first trained in biomedicine who, for twenty years, has worked in a Chinese medicine hospital in Beijing practising Chinese medicine in the neurology department. Due to his ability to speak English he is often assigned groups of Western students who are learning Chinese medicine clinical skills there. Indeed, through discussions with such students he was undoubtedly considered a popular teacher, appreciated for his clarity and thereby can be said to influence, to some extent, Chinese medicine practice in the West. Though, it should be stressed that, only a minority of Westerners receive any of their Chinese medicine training in China. The third exemplar on this Enactment is a young Chinese male doctor, student of the lead researcher and working at the same institution. However, they undertook Q sorting separately from each other.

Loading significantly but not solely and therefore not used in constructing the Enactment are four people; one young Chinese doctor studying at masters level in the department headed by the above exemplar and three Western women. One of whom had first trained as a Western herbalist, a practice that takes the biomedical body as its starting point The other is trained in Japanese Kampo medicine and works alongside biomedical doctors in the West. Lastly the third woman, a Westerner living in China, loaded significantly but negatively with this Enactment, meaning that she is strongly against this version of Chinese medicine. She is trained in Chinese medicine at a university in the West and now follows a Chinese *qigong* teacher as her apprentice. She is in the <30 age group, whereas the other women are all in the 30-55 age group.

This Enactment most closely correlates with Enactment One (0.4980), then Seven (0.4276), but is very poorly correlated with any of the others; correlations with Enactments Four, Two and Five are (0.1120), (0.0987) and (0.0886) respectively and it negatively correlates with Enactment Six (-0.0331).

Table 16: The Q Sort Grid for Enactment Three

	Least agree 最不同意				Neutral 无意见			Most agree 非常同意			
Score	-5	-4	-3	-2	-1	0	1	2	3	4	5
Number of cards	3	4	5	6	8	8	8	6	5	4	3
	57	56	18	49	1	25	26	38	35	32	14
	9	7	44	45	2	10	58	11	51	28	22
	21	60	20	5	36	23	33	29	39	34	52
		41	46	8	16	40	24	17	55	15	
			31	6	54	48	47	50	4		
				42	59	12	13	19			
					27	30	53				
					43	3	37				

Table 17: The Basis for the Analysis of Enactment Three

Highest ranking statements (+5): 14. In clinical practice I use whatever works, no matter from where it originates. 22. The more biomedicine I know the more I use it in my Chinese medicine practice. 52. The two systems of medicines can make reference to each other from their unique way of thinking about a particular problem the different angles reveal different things for us in clinic.

Statements ranked higher than any other Enactment: 4. My starting point is always the biomedical diagnosis (+3). 17. Not blood testing patients on herbs is unsafe practice (+2). 22. The more biomedicine I know the more I use it in my Chinese medicine practice (+5). 28. Because some diseases have no symptoms, if you don't use biomedical knowledge your Chinese medical diagnosis won't be complete (+4). 29. In clinic I don't need *bian bing* (differentiation by disease) as biomedical diseases are a modern version of *bian bing* (+2). 34. In some contexts of practice there are protocols about using biomedicine information, such as recording the blood pressure at each visit, so in different settings my practice varies (+4). 38. A Chinese medicine diagnosis is not as exact and clear as a biomedical diagnosis (+2). 39. I cannot assess the patient's progress without using biomedical indexes (+2). 50. Currently the goals of Chinese medicine are to improve the clinical effect of biomedicine and reduce the side effects (+2).
Lowest ranked statements (-5): 9. First understand the patient's *qi*, in clinic a cure cannot be achieved without working with the patient's *qi*. 21. I just discard Biomedical information. 57. In clinic I don't rely on knowledge from books but on traditional methods of diagnosis handed down to me by my teacher.

Statements ranked lower than any other Enactment: 5. Like Chinese herbs, biomedical drugs have energetic actions (taste, meridians, nature, flavour) and these cannot be understood just by their biochemistry (-2). 7. Using a biomedical diagnosis would decrease my credibility as a Chinese medicine practitioner (-4). 9. First understand the patient's *qi*, in clinic a cure cannot be achieved without working with the patient's *qi* (-5). 20. Clinical decisions cannot be based on anything but knowledge from the classics (-3). 23. How I use biomedical information depends on my role in a patient's healthcare (0). 31. The longer I am in practice the more I see the limitations of biomedicine so am pulled into Chinese medicine's knowledge base not biomedicine's (-3). 58. Cure cannot be achieved with science alone, compassion, kindness and morality are parts becoming overlooked but which I value in my clinical practice (+1).
Distinguishing statements: 4. My starting point is always the biomedical diagnosis (+3). 22. The more biomedicine I know the more I use it in my Chinese medicine practice (+5). 31. The longer I am in practice the more I see the limitations of biomedicine so am pulled into Chinese medicine's knowledge base not biomedicine's (-3). 36. In clinic I cannot describe an X-ray as *yin* or *yang* (-1).

5.8(ii) Analysis

This Enactment prioritises biomedical knowledge as the reality, to the extent that Chinese medical knowledge is only valid within a materialistic, mechanical framework. One participant exemplifying this version was interviewed and asked about his views on the Chinese slogan - inheriting and carrying forward *ji cheng fa yang* 继 承 发 扬. This slogan is often part of the rhetoric of Chinese medicine doctors in China used to idealise the bridging of modernity and tradition (Scheid, 2002b). He replied:

> 'The key point is try to find out something good or something better in TCM.....we don't care about the *ji cheng fa yang*.'

Chinese medicine is here viewed as something to be analysed and broken apart, in much the way that pharmaceutical companies look to indigenous medicines to 'discover' new drugs. Chinese medicine provides biomedicine with an opportunity for further development; it is simply a rich commodity from which relevant insights and tools may be extracted. Chinese medicine is recognised as being able to identify potential treatments that biomedicine can then develop. Chinese medicine is therefore a source of biomedical drugs, one such example being the development of the anti-malarial drug artemisinin, *qinghaosu* 青蒿素 from the Chinese herb artemisia annua *qinghao* 青蒿 (Hsu, 2006). Archaeological findings show that this plant has been used as a remedy for over 2000 years in China (Li & Wu, 1998). It is indicated for the symptoms of chills and fever, which are also of course symptoms of malaria. The approach taken by this Enactment is to disregard the knowledge base that identified this plant as a treatment for such symptoms and instead validate that knowledge's finding through a biomedical understanding; active compounds were isolated in 1971 and subsequently synthesised. We see then that first theory and finally the herb itself are thus redundant, what was considered Chinese medicine knowledge is transferred entirely into the domain of biomedicine. The history of the drug

‘discovery’ is thus truncated to the date of isolating compounds in 1971. Through this process ultimately there will be only one medicine; a vision some call a new ‘integrated’ medicine, others just biomedicine. For, as is seen with the story of *qinghao*, once the practices and knowledge of Chinese medicine are picked apart for useful gems the rest are discarded. Theories, such as *yin* 陰 and *yang* 陽, which for others are integral to Chinese medicine practice, have no reality. This is reductionism to the extreme, dismissing all that doesn’t fit in as useful add-ons to biomedical practice. The traditional here does not need bridging but discarding.

In all enactments but this one the statement:

4. ‘My starting point is always the Western medical diagnosis.’

Is in the area of the grid that practitioners ‘did not agree with,’ it is manifestly absent. This Enactment in contrast is distinguished by agreeing (+3), with it. Clearly making such a statement presence affirms that there is a strong belief in viewing biomedicine alone as the correct view. The same message is indicated by the placement of the following statements, the first given presence the second made absent:

32. ‘Biomedical information is the facts, Chinese medicine is another way of looking at them’ (+4).

And:

41. ‘Biomedical information has no place in the practice of Chinese medicine, they are so far apart that they can’t describe the same thing’ (-4).

The concept of multiplicity is impossible in this Enactment with Chinese medicine mapped onto a reductionist framework of there being one truth. One of the exemplars enacting this reality was the source of the statement:

45. ‘I don’t treat some diseases e.g. AIDS as Chinese medicine doesn’t yet know the right formula to treat it with.’

Note ‘the right formula,’ which presumes there is again one correct true answer. It also indicates that diagnosis and treatment stem from a biomedical disease category. One could hypothesise that phenomenological knowing of the patient through looking, asking, listening and touching would then be filtered to match that predetermined category; a situation which has been shown to be the case for menopause (Scheid, Tuffrey & Ward, 2009).

A further distinguishing statement in this Enactment is:

36. ‘In clinic I cannot describe an X-ray as *yin* or *yang*’ (-1),

Hence, at -1 it is othered. The question of whether Chinese medicine theory can be applied to all situations is repressed; it cannot arise as a valid question in this Enactment relying on a materialist mechanical realism. As Chinese medicine only exists through the gaze of biomedicine, this statement is irrelevant. Similarly, but in this case manifestly absent is the importance for Chinese medicine of non-material *qi*:

9. ‘First understand the patient’s *qi*, in clinic a cure cannot be achieved without working with the patient’s *qi*’ (-5).

It is important in this Enactment to clearly oppose such a view. Making this statement manifestly absent exposes the disdain held for the concept of *qi*. It is an example of what needs changing or forgetting in Chinese medicine, which must move to being more scientific. As was said by one of this Enactment's exemplars, when asked if Chinese medicine needs to use more and more of biomedical knowledge:

> 'I think it is very much the natural process because (for) every traditional medicine the method is to practice to be useful, if it is useful it is certainly interpreted by modern science, becoming the modern Western medication, this is very normal.'

He continued saying that although some Chinese medicine doctors worried that Chinese medicine would disappear in this process they were wrong, as there is only science. Or in other words only one valid reality.

In summary this Enactment of Chinese medicine is one of a resource that is validated through a biomedical materialist understanding that it serves to support and build. The ancient theories and texts are no longer relevant, as all can be explained by scientific, modern biomedicine. There is a shift from distinct practices of biomedicine and Chinese medicine, towards the emergence of one homogenised medicine. Such an Enactment exists in institutional settings in China, practised by doctors of Chinese medicine, particularly those involved in state sponsored research projects with a background in biomedicine. It is also remarkably similar to Chinese medicine described by biomedical doctors in the UK, who state:

> 'Western medical acupuncture has evolved from Chinese acupuncture, its practitioners no longer adhere to concepts such as *yin/yang* and circulation of *qi*, and regard acupuncture as part of

> conventional medicine rather than a complete “alternative medical system”.’ (White, 2009, p33).

In other words Chinese medicine through scientisation and modernisation has become a technique of biomedicine. It rests on the assumption that there is only one true reality and that biomedicine represents that reality. Here Chinese medicine’s validity is entirely defined through the gaze of a biomedical framework. Chinese medicine is simply a rich commodity from which relevant insights and tools may be extracted and the rest discarded (hence plunder in the slogan), helping form a more complete picture of the whole.

Early on in the research process while developing the concourse pro-scientific and pro-biomedical stances were voiced. Dominant themes emerged that related to truth and power. Science and biomedicine were spoken of interchangeably and these are held up as the standard to be emulated. Some doctors in China stated that biomedicine represents the actual truth and that there is only one truth. That strongly emerging view, one that sees scientific knowledge as the legitimate evolving truth is the focus here. Considering the position of science in china, detailed in Chapter Two, this Enactment wields considerable power in china. Such aspects are discussed in the following chapter.

5.9 Enactment Four: A Grand Narrative

For this Enactment I adapt Mao’s phrase as: Chinese medicine is a treasure house so vast that its riches will constantly amaze us.

5.9(i) Demographics

Three people, all living in the West, are exemplars on this Enactment. There are two Western males, one of whom is fluent in Chinese and translates

classical texts, in the 30-55 years group. The other, formerly a biomedical doctor who grew disillusioned with that approach, lectures on Chinese medicine particularly emphasising the limitations of biomedicine, in the >55 age group. The third is a Chinese male also in the >55 age group. In addition, there are ten people loading significantly but not exclusively on this Enactment; a Western male; five Western females; a Chinese male and five Chinese females. They encompass every mixture of Chinese and Westerners living in China and the West, some speaking the others language.

This Enactment correlates most closely with Enactment Two (0.5110), then Enactments One (0.462) and Seven (0.4189), followed by much lower correlation with Enactment Six (0.2508), then Enactments Five (0.1311) and Three (0.1120).

Table 18: The Q Sort Grid for Enactment Four

	Least agree 最不同意					Neutral 无意见			Most agree 非常同意	
Score	-5	-4	-3	-2	-1	0	1	2	3	4	5
Number of cards	3	4	5	6	8	8	8	6	5	4	3
	60	28	30	20	40	7	15	1	26	52	31
	36	12	2	4	54	16	55	25	8	14	51
	18	59	38	42	41	48	13	5	58	22	9
		45	17	37	6	43	19	53	35	49	
			50	11	29	33	10	44	24		
				39	32	21	3	47			
					27	34	46				
					56	57	23				

Table 19: The Basis for the Analysis of Enactment Four

Highest ranking statements (+5): 9. First understand the patient's *qi*, in clinic a cure cannot be achieved without working with the patient's *qi* (+5). 31. The longer I am in practice the more I see the limitations of biomedicine so am pulled into Chinese medicine's knowledge base not biomedicine's (+5). 51. Chinese medicine treats the patient as they present even when biomedicine cannot find what is wrong (+5).

Statements ranked higher than any other Enactment: 1. I translate biomedical information into Chinese medicine principles (e.g. a low basal body temperature would be linked with *yang xu*) (+2). 8. Biomedical information provides a safety net for Chinese medicine practitioners not advanced in its methods (+3) 9. First understand the patient's *qi*, in clinic a cure cannot be achieved without working with the patient's *qi* (+5) 10. Starting from the biomedical diagnosis I know what the possible Chinese medicine patterns are (+1). 31. The longer I am in practice the more I see the limitations of biomedicine so am pulled into Chinese medicine's knowledge base not biomedicine's (+5).
Lowest ranked statements (-5): 18. In Chinese medicine today I cannot use herbs without combining their pharmacological functions with their energetic effects. 36. In clinic I cannot describe an X-ray as *yin* or *yang*. 60. I use ECG so palpation today in Chinese medicine practice is a mere symbol of being a Chinese medicine practitioner.

Statements ranked lower than any other Enactment: 12. Relying on the concept of channels to treat does not give as good results as using the biomedical anatomical understanding of the body (-4). 17. Not blood testing patients on herbs is unsafe practice (-3). 18. In Chinese medicine today I cannot use herbs without combining their pharmacological functions with their energetic effects (-5). 28. Because some diseases have no symptoms, if you don't use biomedical knowledge your Chinese medical diagnosis won't be complete (-4). 36. In clinic I cannot describe an X-ray as *yin* or *yang* (-5). 37. The four methods of Chinese medicine diagnosis these days involve looking at test results, X-rays and asking about the biomedicine diagnosis (-2). 50. Currently the goals of Chinese medicine are to improve the clinical effect of biomedicine and reduce the side effects (-3). 60. I use ECG so palpation today in Chinese medicine practice is a mere symbol of being a Chinese medicine practitioner (-5).
Distinguishing statements: 28. Because some diseases have no symptoms, if you don't use biomedical knowledge your Chinese medical diagnosis won't be complete (-4). 36. In clinic I cannot describe an X-ray as *yin* or *yang* (-5). 18. In Chinese medicine today I cannot use herbs without combining their pharmacological functions with their energetic effects (-5).

5.9(ii) Analysis

This Enactment represents a resistance to the replacement of Chinese medical knowledge with what Enactment Three would assume as superior biomedical knowledge. This is clearly evident with the manifest absence of:

12. 'Relying on the concept of channels to treat does not give as good results as using the Western medical anatomical understanding of the body (-4).

Rejecting this statement from presence in effect confirms the validity of the Chinese medicine body, one based on channels not muscles; a crucial factor in knowledge conceptions that will be returned to in the next chapter. There is here a view that Chinese medicine is superior to biomedicine, but with a very different emphasis than seen in Enactment One; there, the superiority came from Chinese medicine doctors exclusively holding part of the whole picture. Implying that biomedicine needed these doctors, but results in Chinese medicine doctors also needing biomedical knowledge. In contrast here, Chinese medicine is seen as a system of medicine more advanced than biomedicine. Biomedicine is not needed as an integral part, though as will be shown later can be part of it. This superiority is seen in the presence of the following statement:

8. 'Biomedical information provides a safety net for Chinese medicine practitioners not advanced in its methods' (+3).

Implying that biomedicine is a simpler more basic type of medical practice. The statement from interview reiterates such a view:

> 'Chinese medicine is simple to learn but difficult to practise whereas biomedicine is difficult to learn but easy to practise *zhong yi shi*

jiandan yixue, dan nan shijian er xiyi shi nanxue, dan hen rongyi shijian 中医是简单易学，但难实践而西医是难学，但很容易实践.'

Furthermore, this Enactment is distinguished by the manifest absence of the following:

28. 'Because some diseases have no symptoms, if you don't use biomedical knowledge your Chinese medical diagnosis won't be complete' (-4).

This Enactment does clearly not need biomedical knowledge as Enactment One did. In some respects, there are epistemological similarities between this Enactment and Enactment Three. Both place the following as manifestly absent:

18. 'In Chinese medicine today I cannot use herbs without combining their pharmacological functions with their energetic effects' (-5); Enactment One (-3).

They each reject this statement out of presence. However, whilst sharing a vision of a comprehensive body of knowledge, they are nevertheless at extreme variance with each other when it comes to what that knowledge consists of. It is rejected out of presence by Enactment Three; rejecting 'energetic effects,' whereas in Enactment Four it is 'pharmacological functions' that are rejected. The Chinese medicine of Enactment Four is an all explaining meta-narrative, in the sense that it can subsume biomedical knowledge and make sense of it using its own theoretical framework. Much like biomedicine's picking and choosing what to keep and discard seen in Enactment Three. This can explain the otherwise contradictory presence of this statement:

22. ‘The more biomedicine I know the more I use it in my Chinese medicine practice’ +4.

It is used by subsuming it into Chinese medicine. A process that Farquhar has previously described for Chinese medicine practice in China in the 1980’s (Farquhar, 1994). One exemplar commented on statement twenty two saying, ‘pharmacology is not necessary, though it may be useful.’ This raises another aspect found in this Enactment. Namely that biomedicine’s knowledge is not rejected outright, whilst not needed for this Enactment to function, as it was in Enactment One, it can be incorporated. Regarding the following:

25. ‘A biomedical diagnosis will not influence my treatment, it is only the patient’s observable changes that matter.’

One exemplar wrote, ‘generally true although all information has some value.’ As mentioned in the previous chapter, assisting in the analysis of Q studies are comments such as this made by participants after they have sorted the statements. These can be by interview or as in this case in booklets provided at the time of sorting.

The difference between Enactments Three and Four is again highlighted by the following statement:

36. In clinic I cannot describe an X-ray as *yin* or *yang*.

In Enactment Four this is manifestly absent (-5), since *yin* and *yang* are applicable to everything and anything. In contrast, for Enactment Three this

statement is othered (-1). From the latter perspective it goes without saying that such ephemeral concepts as *yin* and *yang* would not even be considered to be real; X-rays are real concrete realities whereas *yin* and *yang* are not and are therefore to be discarded from knowledge as mere belief. They cannot be manifestly absent they simply do not exist. Or, as Law (2004) would say, they are the mess that is removed from research; that which doesn't fit. Perhaps this example provides an insight into the subtleties of Law's method assemblage and the contribution it can make in Q analysis. Without it a statement at (-1) position would be explained as simply neutral; yet within this framework it is seen as being crucial to the understanding of this Enactment, particularly its emphasis.

The sense of discovery found in this Enactment implies this is a journey, from biomedicine once uncritically accepted, to Chinese medicine and *qi*. Hence presence is given to the following:

31. The longer I am in practice the more I see the limitations of biomedicine so am pulled into Chinese medicine's knowledge base not biomedicine's (+5).

With one exemplar writing:

> 'Yes, biomedicine is so short sighted as it only sees the physical, useful in certain limited situations e.g. trauma or serious acute illness.'

The all encompassing thinking of this Enactment, that sees itself as superior to matter bound biomedicine is further reflected by the presence of:

9. ‘First understand the patient’s *qi*, in clinic a cure cannot be achieved without working with the patient’s *qi* (+5).

Two comments were made by exemplars about this statement. One wrote, ‘this is the key – our understanding of *qi*.’ Another wrote, ‘*qi* is fundamental to the practice of medicine.’ This latter comment again demands the superiority of Chinese medicine over biomedicine, which lacks *qi*. As *qi* doesn’t exist in biomedicine, it is therefore lacking as a complete system of medicine. This point is further supported by the comment made regarding the othered statement:

40. ‘Biomedicine understands the workings of the body Chinese medicine can only know a part’ (0).

One person wrote in response to this statement, ‘no – the other way round actually’ othered here for being taken for granted.

In summary, this Enactment represents the discovery of *qi* and the importance of the immaterial in clinical medicine. It views biomedicine as greatly limited by its mechanistic reductionism, whereby it inevitably misses the larger picture that is available to Chinese medicine. It can therefore be subsumed within Chinese medicine practice but never replace it. There is a sense that discovering Chinese medicine opens up a new world view; one in which Chinese medicine can explain all things; here Chinese medicine becomes a grand narrative. Some, including no doubt those making up Enactment Three, would see this as a romanticised view of Chinese medicine, exclusively found in the West (Wiseman, 2001); one that selectively adopts concepts that fit into a solely Western cognitive aesthetic (Unschuld, 1985). Whilst this may be described as a Western cognitive aesthetic, this Enactment has Chinese input and several Chinese people

significantly correlate with it too. This suggests that using Western versus Eastern categories is overly simplistic.

5.10 Enactment Five: A Way of Being

Quite unlike Mao's vision for Chinese medicine this Enactment I sum up as: Chinese medicine is a treasure house that is preserved by its ability to remain hidden, ready to re-emerge given the right conditions.

5.10(i) Demographics

This Enactment is exemplified by two males. One, an octogenarian and seventh generation 'rural'[65] Chinese medicine doctor in private practice in Baoding city, approximately one hundred and fifty kilometres south of Beijing. As such his training was prior to post communist China and institutionalised Chinese medicine.[66] His family members suffered humiliation during the Cultural Revolution for being educated elites. For example, a banner of gratitude received from a former high ranking dignitary, whose family member was cured by this doctor's ancestor, was publicly destroyed during that turbulent time. However, this doctor was now at peace with the government, supporting the current policies which allow him to practice privately under licence. He proudly said, whilst showing me around his large modern flat, 'we have the reform and opening policies, *gaige kaifang*[67] 改革开放 to thank for all this.' Other than via his great nephew now studying Chinese medicine at university he had no personal connection with institutionalised Chinese medicine and had had no interaction with Western practitioners of Chinese medicine and did not speak English.[68] He charged

65 The doctor lived and practiced in Baoding, a city in Hebei province with a population of approximately 1,000,000. However, the Chinese medicine students accompanying me were very excited to show me what they called 'a real village doctor,' I was somewhat bemused on arrival in another rapidly developing town of skyscrapers as to how this constituted a village in the student's eyes!

66 For details of the transformation that Chinese medicine underwent in the hands of the early communist government see: TAYLOR, K. 2005, Chinese Medicine in Early Communist China, 1945-63, Routledge Curzon, New York.

67 These policies of Deng Xiaoping commenced in 1979 and continue in the post-Deng era. These policies are attributed with bringing about the rapid economic growth in China which continues through the current world recession.

68 He had become known to me through Chinese medicine students in Beijing. In their class was his great nephew, who whilst learning in clinic with his great uncle and his father, was also obliged to gain university qualifications to register as a doctor in China.

patients according to their ability to pay, never giving up on a patient who needed treatment but could not pay. The other exemplar practiced right next to the CACMS, without a government licence to do so. He was an American who had spent over twenty years immersing himself in Chinese culture. He first encountered Chinese medicine as a patient, having had an ankle injury which was remarkably healed by a Chinese medicine doctor in Taiwan. This direct experience led him on a path to learn Chinese medicine. He first studied Chinese and was due to enrol at the Beijing University of Chinese Medicine *Beijing zhongyiyao daxue* 北京中医药大学, when the 1989 Tiananmen Square protests culminated in what is declared the 'June fourth incident' by official Chinese sources and what the rest of the world refer to as 'the Tiananmen square massacre'. Due to his involvement in assisting some of the student protestors to flee the country he was forced to go into hiding, or go underground. However, his desire to learn Chinese medicine had not diminished. He therefore set out to travel the country looking for elderly Chinese medicine doctors who would be willing to take him on as an apprentice. He has been successful in this endeavour and has studied with a series of doctors, seeking another as each passed away, carefully documenting every prescription and teaching in detail. He is now studying with an octogenarian doctor, who he proclaims will be his last teacher, as he feels that there are now no doctors alive that studied Chinese medicine themselves prior to the communist era, which is the type of Chinese medicine he is interested in. Thus, both of these exemplars had learned Chinese medicine directly from a master and practiced outside institutional settings.

Six other people loaded significantly but not purely on this Enactment. Two Chinese males, one was the oldest participant with no English living in China. It is interesting that he was the only person (22) loading significantly on both Enactment Two (0.5845) and Five (0.5017). As not an exemplar on

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Incidentally the great nephew had just had a son who had been named after a famous 19th century physician Zhang Xichun 张锡纯 noted for his skill in integrating biomedicine and Chinese medicine. And so the next generation of the family lineage begins.

either his Q sort did not contribute to the enactments but shows strong affiliation with both views. This was the oldest participant whose article, ‘Chinese medicine must not grovel at the feet of science’ *zhongyi buneng baidao zai kexue de jioa xia* 中医不能拜倒在科学的脚下 (Lü, 2006b) led me to seek him out to contribute to the concourse. He then also became a participant in the Q sorting.

The other Chinese male was middle aged living in the UK. The rest, four females comprising two Chinese and two Westerners, one of each group had also lived in the other culture.

This Enactment correlates most closely with Enactment Two (0. 4179), then Enactments One (0. 1677), Four and Seven (0. 1311), followed by Six (0. 1114) and finally Enactment Three (0.0886).

Table 20: The Q Sort Grid for Enactment Five

Least agree 最不同意 Neutral 无意见 Most agree 非常同意

Score	-5	-4	-3	-2	-1	0	1	2	3	4	5
Number of cards	3	4	5	6	8	8	8	6	5	4	3
	3	9	7	27	16	31	48	49	57	47	24
	1	4	8	23	15	33	37	40	53	56	26
	19	2	10	5	30	18	38	60	36	52	58
		44	11	13	21	14	34	35	46	55	
			12	50	29	32	41	43	51		
				6	20	28	42	59			
					17	45	54				
					25	22	39				

Table 21: The Basis for the Analysis of Enactment Five

Highest ranking statements (+5): 24. In practice I stick to Chinese medicine principles, using herbs according to their pharmacological makeup is simply not Chinese medicine. 26. Thinking according to indexes and biochemistry does not fit in with Chinese medicine's theoretical system. 58. Cure cannot be achieved with science alone, compassion, kindness and morality are parts becoming overlooked but which I value in my clinical practice.

Statements ranked higher than any other Enactment:

40. Biomedicine understands the workings of the body Chinese medicine can only know a part (+2).
42. Biomedical tests themselves, such as X-rays can cause disease and have no place in my practice (+1).
45. I don't treat some diseases e.g. AIDS as Chinese medicine doesn't yet know the right formula to treat it with (0).
46. Using biomedical information in Chinese medical practice is like shopping for apples and coming back with pears (+3).
47. I cannot practice Chinese medicine without relying on classical knowledge (+4).
56. In clinic if I want to make a Chinese medical diagnosis clearly, the precondition is discarding the biomedical diagnosis (+4).
59. The more I use biomedicine's technologies in diagnosis (reading X-rays, blood test results etc.), the less I need to rely on knowing the patient by other methods such as touch (+2).
60. I use ECG so palpation today in Chinese medicine practice is a mere symbol of being a Chinese medicine practitioner (+2).

Lowest ranked statements (-5):

3. The biomedical diagnosis of rosacea leads me directly to choose specific herbs known to treat this condition.
1. I translate biomedical information into Chinese medicine principles (e.g a low basal body temperature would be linked with *yang xu*).
19. Using biomedical techniques in my practice gives me a higher status than 'pure' Chinese medicine practitioners.

Statements ranked lower than any other Enactment: 1. I translate biomedical information into Chinese medicine principles (e.g. a low basal body temperature would be linked with *yang xu*) (-5). 2. If a patient is taking biomedical drugs for a condition I wouldn't also treat it with Chinese medicine (e.g. if the patient takes thyroxin for hypothyroidism she wouldn't also need herbs) (-4). 3. The biomedical diagnosis of rosacea leads me directly to choose specific herbs known to treat this condition (-5). 23. How I use biomedical information depends on my role in a patient's healthcare (-2). 44. Chinese medicine is all about *qi*, it is more useful to understand *qi* than to know anything of biomedicine (-4).
Distinguishing statements: 57. In clinic I don't rely on knowledge from books but on traditional methods of diagnosis handed down to me by my teacher (+3). 60. I use ECG so palpation today in Chinese medicine practice is a mere symbol of being a Chinese medicine practitioner (+2). 14. In clinical practice I use whatever works, no matter from where it originates (0).

5.10(ii) Analysis

Considering the demographics of this Enactment, it is unsurprising that value is placed on knowledge directly transmitted from master to student; it was the only Enactment that placed the statement as presence:

57. ‘In clinic I don’t rely on knowledge from books but on traditional methods of diagnosis handed down to me by my teacher’ (+3).

On reflection, this statement could have been clearer if ‘but’ read ‘as much as.’ A few participants did point out that they use both so found it hard to rank this statement, however, most did not view it as strictly meaning an either or choice. The exemplars of this Enactment did indeed rely on book knowledge, largely through memorising classical texts.[69] In this context this statement becomes less of a dichotomy; it is through their teacher that these memorised texts become accessible knowledge; the teacher is intertwined with the texts, being the key to their understanding. So in this sense the readings are the teachings of the teacher. This Enactment could be described as what Bates (1995) terms scholarly medicine.

As the route of transmission has been shown to be an important influence on practice (Hsu, 1999), no doubt the apprentice style training of those on this Enactment has a bearing on it having low correlations with the other Enactments, which are largely transmitted via institutional book based teaching. It would be useful to briefly refer to the correlations between Enactments, given above, to see that only one correlation, that of Enactment Two, was higher than 0.2. The one participant, mentioned in Enactment Two, loaded highly on both Enactment Two (0.58) and Enactment Five (0.50), also received a pre-communist non institutional training in Chinese medicine. He has been influential in steering Chinese medicine’s development in China. Hence he holds a position both within an institutionalised Chinese medicine setting and outside it. Whilst doing fieldwork in Beijing, most doctors that I came into contact with, actively attempted to deny any criticism of Chinese medicine. Yet this doctor was publicly outspoken, particularly regarding Chinese medicine as a science valid in its own right, and different to the

69 The Westerner exemplifying this Enactment said that his teacher had let him off lightly; as a Westerner he was told he had to memorise the *Shang Han Lun* forwards, whereas the teacher would expect a Chinese person to memorise it forwards and backwards. He also pointed out that many young Chinese doctors can memorise such books, but still do not know how to apply the knowledge.

science of biomedicine. He clearly acts as a bridge between these enactments of Chinese medicine, one wanting to be modern, relevant and scientific and the other a Chinese medicine shunning change. This is possible as both enactments allow for multiple knowledges. His perspective on science reflects this. In interview he stated that:

> 'The (Chinese people) still don't understand that science is nothing more than a system of knowledge, one type of knowledge, one of the world's knowledges.' *ta hai bu liaojie, kexue jinjin shi ge zhishi tixi, yizhong zhishi, jiu shijiede yizhong zhishi* 他还不理解，科学仅仅是个知识体系，一种知识,就世界的一种知识' (Lü, 2006a).

Another notable aspect of this Enactment is the need for separatism and autonomy. Through such autonomy Chinese medicine as a way of life can survive. Rather than assimilate biomedical practices, more Chinese medicine information is sought. Through staying apart from biomedicine and its infrastructure Chinese medicine can escape being engulfed by the mainstream dominant order. It is a way to preserve a tradition whilst respecting other knowledge. In interview one exemplifying this Enactment stated: 'Dr Lu at the Chinese Japanese friendship hospital[70] is doing amazing things in gynaecology, using all sorts of tests. But this for me is not Chinese medicine'. So whilst there is respect for the other, there is a perceived incommensurability. The boundaries are not permeable. This participant also commented that: 'When a patient brings me their X-ray I like telling them that I don't know what it means and if they want to see someone who does they are in the wrong place.' Presenting complete confidence in Chinese medicine being complete without the information found in an X-ray. Therefore the presence of the following statement is not unexpected:

70 The Chinese Japanese friendship hospital is a Chinese medicine hospital in Beijing.

36. In clinic I cannot describe an X-ray as *yin* or *yang* (+3),

The presence of this statement contrasts with its manifest absence in Enactment Four, where an X-ray is described as *yin* or *yang*, achieved by filtering biomedical information through the all encompassing theories of Chinese medicine. So whilst both this and Enactment Four privilege Chinese medicine knowledge their strategies in doing so are quite different and give rise to distinct practices.

Further distinguishing this Enactment is the statement:

16. 'In clinical practice I use whatever works, no matter from where it originates' (0).

Since Chinese medicine is bound here to be true to its perceived origins, the border is closed and cannot include useful innovations; unlike Enactment Two where modern technologies were viewed as equally belonging to the domain of Chinese medicine as the domain of biomedicine. Here this statement is othered as irrelevant. Such a view is problematic when the many historical influences and transformations that have constantly been part of Chinese medicine are considered to be influential in the survival of Chinese medicine rather than responsible for its demise. It indicates an essentialist stance as to what the real Chinese medicine comprises. So that all changes prior to communist institutional Chinese medicine are grouped as belonging to an uninterrupted lineage. Not dissimilar to the constantly heard claims that Chinese medicine has more than two thousand years history. Whilst gathering the concourse this trope was repeatedly uttered and is strewn throughout modern Chinese medical literature. It even justifies treatment choices when researching Chinese medicine, even for diseases not known even one hundred years ago (Scheid et al., 2010a).

Looking at one of this Enactment's distinguishing statements:

60. 'I use ECG so palpation today in Chinese medicine practice is a mere symbol of being a Chinese medicine practitioner' (+2).

This may appear surprising. It is distinguished since in all other enactments it is given a negative rank. However, using method assemblage as a tool to understand the enactments has an advantage over simply reading ranks as positive and negative. In Q one way round this over simplification is to have participants mark on their grid where disagreement starts; and for one exemplar this was at +3. However, the Enactment is not purely based on that single Q sort. Therefore this doesn't necessarily hold for the Enactment it contributed to. It is useful to recall here that the borders between presence and othered are fluid. In the case here, the positive ranking does not give presence but clearly others this statement. Othered as this statement is not relevant; ECG machines do not exist in the context of the private self contained practices outside institutionalised modern settings. It implies also that where ECG does occur this is not the 'real' Chinese medicine, serving to consolidate the view that sticking to pre-modern methods is necessary for Chinese medicine. Whereas, for both Enactments Two and Four, this statement is manifestly absent with the lowest possible ranking; for they have far more interface with the biomedical world.

Enactment Five and Enactment Three have contrasting views yet have a similar pattern of correlation with other Enactments; both hold strongly to their own view and show little overlap with most others. Whilst having little correlation with each other, they nevertheless both make the following statements manifestly absent:

9. ‘First understand the patient’s *qi*, in clinic a cure cannot be achieved without working with the patient’s *qi* (-5),’ and

44. ‘Chinese medicine is all about *qi*, it is more useful to understand *qi* than to know anything of biomedicine (-4).

However, these are manifestly absent for entirely different reasons. Here, it is not a question of the reality of *qi*, as it was in Enactment Three; this is not disputed. These are rejected by this Enactment on the basis that Chinese medicine is much more than *qi* alone; in interview one of this Enactment’s exemplars explained with exasperation, ‘Chinese medicine is so much more than *qi*.’ Thus, reflecting the purist quality found in this Enactment, in which such generalisations are refuted. Furthermore, this shows very clearly that any statement gains meaning through the framework through which it is viewed rather than being inherent in it. Thus, these statements, like Wittgenstein’s duck rabbit image are seen as different things entirely and this is partly to do with the use they play in each Enactment’s entirety, including that which it is not:

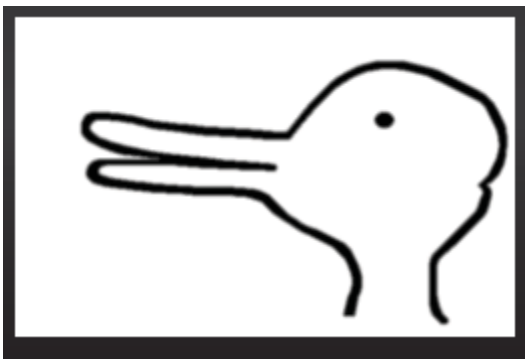

Figure 7: Wittgenstein's Rabbit Duck Image.

Stephenson (1963) makes the same point, in the following:

> ‘All use of language, surely, takes place on concrete ‘field’ of action; the significance of any meaning is a dependent function, not of definitions in general terms, but in psychological-situational terms.’ (p270).

In Q a statement can be placed in an identical position in several enactments however, that statement will carry different meanings in each. The meaning is dependent on the statement’s position in relation to all other statements; an expression of the gestalt principle, that meaning of parts lies in the context of the whole.

Another important aspect evident in this Enactment is the emphasis on the way one lives one life, both in how one engages with others as well as cultivating the self. When I met the exemplars’ their benevolence was immediately apparent; I was offered hospitality well beyond the confines of the research project. It also showed in their practices; with one giving cost price treatments to his rural poor patients and the other never missing a day’s practice of *yang shen* 养神, or self cultivation exercises. Chinese medicine from this view is more than knowledge it is a way of being, or embodied knowledge, that is integral to its successful practice. Presence is therefore given to the following statement:

58: ‘Cure cannot be achieved with science alone, compassion, kindness and morality are parts becoming overlooked but which I value in my clinical practice’ (+5).

This Enactment reflects a sense of following a path that would be lessened by straying from it, hence the presence of:

26. ‘Thinking according to indexes and biochemistry does not fit in with Chinese medicine’s theoretical system’ (+5).

And:

20. ‘In practice I stick to Chinese medicine principles, using herbs according to their pharmacological makeup is simply not Chinese medicine’ (+5).

Enactment Five respectfully does not place Chinese medicine above biomedicine and views them as simply incomparable; it does however, acknowledge different aims:

55. Chinese medicine cannot tell if a patient has cancer through its diagnostic methods so of course Western medicine’s technology is used for diagnosis (+4).

But firmly places such information as irrelevant to Chinese medicine practice with the presence of:

56. In clinic if I want to make a Chinese medical diagnosis clearly, the precondition is discarding the biomedical diagnosis (+4).

And manifestly absent is:

4. My starting point is always the biomedical diagnosis (-4).

There is no suggestion that the two systems together make up a whole in this account. Whilst there are firm boundaries around Chinese medicine, it is not part of a dichotomy, as seen in Enactment One, with Chinese medicine on one side and biomedicine on the other.

In summary, this Enactment seeks to preserve Chinese medicine as a way of life, free from biomedicine's influence that it recognises as an eroding hegemonic social and political power. It does so by actively remaining hidden, yet documenting impeccably its own knowledge, laying the ground for resurgence when conditions allow. It looks to the past corpus of knowledge directly transmitted by a teacher for direction, valuing this classical knowledge and direct transmission over modern innovations. It fears the obscuring of Chinese medicine by the lens of biomedicine, hence discards its diagnostic categories and technologies entirely. It acknowledges the value of biomedicine and respectfully does not place Chinese medicine as superior to biomedicine but views the two as simply incomparable; knowledge from biomedicine is therefore irrelevant to Chinese medicine practice. Cultivation of the practitioner as a compassionate being is also integral to this Enactment, as is living according to its principles of following the seasons and living in harmony with nature. There is a sense of the fragility of this practice when strayed from. Medicine here is far more than that which can be materially measured or dispensed, hence the label 'a way of being.'

5.11 Enactment Six: A Dynamic Tradition

Only one person, a 30-55 age group, Chinese male in the UK, exemplified this Enactment therefore the Enactment is simply his own Q sort. During factor extraction and rotation this Enactment was chosen to be retained as, in each and every version of these steps, this person solely exemplified one Enactment. However, when it came to its interpretation there are difficulties. In such cases interpretation is usually aided by using other material, such as post sorting comments and taking the interpretation back to the participant.

However, this person firstly did not supply a single comment and secondly did not reply when contacted again. This makes interpretation difficult. In the field of Q, most suggest that enactments with only one exemplar should not be interpreted as it is not an inter-subjectively shared account. However, when all subjectivity is a synthesis of inter-subjectively shared viewpoints, as I argue in this thesis, this would not be a reason not to interpret this Enactment. Except that, with a single sort the entirely random placement of the statements, without even reading them cannot be ruled out. As such, it would not engage with inter-subjectivity. I was present when this person sorted alongside others. I noted that the grid was filled in remarkably quickly, then this person lay his head down and fell asleep. I am suspicious that this sort does not therefore represent operant inter-subjectivity. It seems that there was no engagement with the statements and the numbers entered on the grid cannot reflect that person's viewpoint. Therefore, for this Enactment I simply provide the raw data so that readers can make up their own mind on its interpretability, thereby conforming to the commonly accepted practice in Q studies.

Table 22: The Q Sort Grid of Enactment Six

Least agree 最不同意 Neutral 无意见 Most agree 非常同意

Score	-5	-4	-3	-2	-1	0	1	2	3	4	5
Number of cards	3	4	5	6	8	8	8	6	5	4	3
	55	54	24	10	8	1	29	16	9	32	14
	46	11	30	13	38	19	33	27	21	37	26
	40	42	15	39	22	20	35	28	31	41	49
		45	12	4	44	5	6	36	52	43	
			60	25	47	7	17	48	58		
				34	23	50	3	53			
					51	2	18				
					59	57	56				

Table 23: The Basis for the Analysis of Enactment Six

Highest ranking statements (+5): 14. In clinical practice I use whatever works, no matter from where it originates. 26. Thinking according to indexes and biochemistry does not fit in with Chinese medicine's theoretical system. 49. Chinese medicine moves with the times, e.g. herbal formulae can now be given intravenously for quick effect, but it is still Chinese medicine.
Statements ranked higher than any other Enactment: 21. I just discard Biomedical information (+3). 27. Knowing the biomedical diagnosis alters what is seen in the tongue and felt at the pulse (+2). 37. The four methods of Chinese medicine diagnosis these days involve looking at test results, X-rays and asking about the biomedicine diagnosis (+4). 41. Biomedical information has no place in the practice of Chinese medicine, they are so far apart that they can't describe the same thing (+4). 43. Only rapidly progressing potentially fatal diseases need a biomedicine diagnosis (+4). 49. Chinese medicine moves with the times, e.g. herbal formulae can now be given intravenously for quick effect, but it is still Chinese medicine (+5).

Lowest ranked statements (-5):

55. Chinese medicine cannot tell if a patient has cancer through its diagnostic methods so of course biomedicine's technology is used for diagnosis.

46. Using biomedical information in Chinese medical practice is like shopping for apples and coming back with pears.

40. Biomedicine understands the workings of the body Chinese medicine can only know a part.

Statements ranked lower than any other Enactment:

47. I cannot practice Chinese medicine without relying on classical knowledge (-1).

42. Biomedical tests themselves, such as X-rays can cause disease and have no place in my practice (-4).

35. Biomedical tests e.g. X-rays act as assistants in the diagnostic process (1).

34. In some contexts of practice there are protocols about using biomedicine information, such as recording the blood pressure at each visit, so in different settings my practice varies (-2).

24. In practice I stick to Chinese medicine principles, using herbs according to their pharmacological makeup is simply not Chinese medicine (-3).

15. Using stethoscopes, blood tests etc. are a natural progression into the 21st century and so are characteristic of modern Chinese medicine today (-3).

Distinguishing statement:

41. Biomedical information has no place in the practice of Chinese medicine, they are so far apart that they can't describe the same thing (+4).

21. I just discard biomedical information (+3).

27. Knowing the biomedical diagnosis alters what is seen in the tongue and felt at the pulse (+2).

51. Chinese medicine treats the patient as they present even when biomedicine cannot find what is wrong (-1).

54. Pneumonia is now treated with antibiotics not by opening the bowels (-4).

55. Chinese medicine cannot tell if a patient has cancer through its diagnostic methods so of course biomedicine's technology is used for diagnosis (-5).

5.12 Enactment Seven: A Pragmatic Blend

There are hints at Mao's vision of integration here, but not to make a new medicine, rather to evolve Chinese medicine suitable for the demands of a new time, summarised as: 'Chinese medicine is a treasure house that is continuously added to and repackaged.'

5.12(i) Demographics

This Enactment consists of four people all of whom are Westerners. One male reads Chinese language; one female has spent extensive time studying in Japan and is fluent in Japanese. The other male and female, though having visited China, are not able to access primary language sources. All, but one, are in the 30–55 age group, one male is > 55. A further five people, two males and three females, load significantly but not exclusively on this

Enactment. All are involved in education or regulation of practice and four are in leadership roles. All these are Westerners except for one Chinese woman who has lived in the West for many years training practitioners in tertiary education.

Table 24: The Q Sort Grid for Enactment Seven

Least agree 最不同意 Neutral 无意见 Most agree 非常同意

Score	-5	-4	-3	-2	-1	0	1	2	3	4	5
Number of cards	3	4	5	6	8	8	8	6	5	4	3
	27	56	42	60	33	34	5	23	55	47	51
	57	6	43	30	46	26	13	28	48	14	58
	21	59	25	24	37	10	11	22	35	18	52
		45	19	29	49	12	3	53	44	15	
			38	7	20	54	8	36	16		
				32	40	2	1	9			
					41	17	39				
					4	50	31				

Table 25: The Basis for the Analysis of Enactment Seven

Highest ranking statements (+5): 51. Chinese medicine treats the patient as they present even when biomedicine cannot find what is wrong. 52. The two systems of medicines can make reference to each other from their unique way of thinking about a particular problem the different angles reveal different things for us in clinic. 58. Cure cannot be achieved with science alone, compassion, kindness and morality are parts becoming overlooked but which I value in my clinical practice.
Statements ranked higher than any other Enactment: 16. My practice of Chinese medicine is based on what biomedicine doesn't treat well (+3). 18. In Chinese medicine today I cannot use herbs without combining their pharmacological functions with their energetic effects (+4). 48. There is a clear distinction between Chinese and biomedicine in orthopaedic practice, biomedicine treats only the muscles and bones whilst Chinese medicine relies on channels and *qi* (+3).
Lowest ranked statements (-5): 21. I just discard biomedical information. 27. Knowing the biomedical diagnosis alters what is seen in the tongue and felt at the pulse. 57. In clinic I don't rely on knowledge from books but on traditional methods of diagnosis handed down to me by my teacher.

Statements ranked lower than any other Enactment: 6. Biomedical information does not influence my actual prognosis (-4). 25. A biomedical diagnosis will not influence my treatment it is only the patient's observable changes that matter (-3). 27. Knowing the biomedical diagnosis alters what is seen in the tongue and felt at the pulse (-5).
There are no distinguishing statements.

What is remarkable about this Enactment is that it shows high correlations (>.40) with four of the other Six Enactments, whereas other enactments show a descending pattern of stronger to lesser correlations. This one suggests the ability to empathise with other's opinions and to actually take these on as their own. Also of note is that all those exemplifying this enactment have held or do hold positions of power and leadership in the field of Chinese medicine in the West; two having headed the Register of Chinese Herbal Medicine (RCHM) and two schools of Chinese medicine and Kampo (Japanese herbal medicine based primarily on a Chinese medicine classical text). These high correlations across a broad range of enactments reflect on them as leaders. It is known that leaders show a high use of emotional intelligence in their roles (Gardner & Stough, 2002). This is important in that it allows for understanding of not only their own but the views of others (Caruso et al., 2002). One could thereby infer that this Enactment, with its embracing and understanding of other viewpoints, representing leaders in the field of education and governing bodies would influence the course of the development of Chinese medicine in the West. In other words, this face of Chinese medicine is one that operates in the wider political and social sphere

in which Chinese medicine is placed. As such it wields power in the UK in a similar way that Enactment Three does in China; they both attract economic resources and political influence. However, their differences reflect the very differing political and social contexts which each inhabits.

Emotional intelligence can be seen to encompass 'the general abilities of self awareness, self management, social awareness and relationship management.' (Goleman, 2001, p27). The exemplars making up this Enactment clearly have different styles in achieving these competencies. One showed flexibility and diplomacy. His comments, added to the Q sort booklet post sorting, showed careful thinking and the option of different interpretations given different circumstances. For example, in response to the statement:

39. 'I cannot assess the patient's progress without using medical indexes' (+1).

He commented, 'sometimes true, e.g. blood pressure but not the typical scenario.' Others were self assured and abrupt and more confrontational. In response to the statement:

3. 'The Western medical diagnosis of rosacea leads me directly to choose specific herbs known to treat this condition'(+1).

one exemplar commented simply 'rubbish,' another 'I think this taps into useful modern research,' and a further exemplar commentated, 'yes, in this case I would be thinking 'rosacea; need to clear heat and invigorate blood.' These illustrate not just different styles of communication but more importantly the non-essentialist nature of the Enactment, as well as the need

to avoid reification of it; it is the Enactment itself as shared subjectivity rather than the individuals making up the Enactment that is of interest in Q methodology. Therefore it can emerge from differing viewpoints which nevertheless hold together in their entirety.

This Enactment involves representing Chinese medicine in a wider context than that of individual private clinic based practitioners. The inevitable interface with institutional partners; those in educational establishments and regulatory bodies including government officials will mould and are moulded by this Enactment. This will dictate legitimate terms of reference, such as normative standards, that then influence the practice of the profession. This Enactment repeatedly adheres to the two medical systems making up the whole view that was found in Enactment One. There is an acceptance of the validity of biomedical knowledge in the practice of Chinese medicine as a realistic part of practice. As shown by the presence of:

52.'The two systems of medicines can make reference to each other from their unique way of thinking about a particular problem the different angles reveal different things for us in clinic' (+5).

There is no sense of conflict here. As with the statement:

18. 'In Chinese medicine today I cannot use herbs without combining their pharmacological functions with their energetic effects' (+4).

It is not surprising that statement 18 is given presence when considering that some exemplars are directly responsible for writing educational curricula that include both aspects contained in the statement.

The two systems are interfacing to show a clearer picture of what is there. Manifestly absent is:

21. ‘I just discard biomedical information’ (-5).

If such a statement was given presence necessary information for a complete picture would be lost. The potential for viewing knowledge as obscuring, as was found in Enactment Five, is manifestly absent:

6. ‘Biomedical information does not influence my actual prognosis’ (-4).

This suggests that biomedical information is an integral part of a prognosis, as it is part of completing the whole picture. This is the only Enactment that does not have any distinguishing statements. However, since this Enactment is marked by encompassing other viewpoints this could be expected. Nevertheless, it does hold the most extreme point of the range for certain statements including the latter mentioned above. Reiterating the message of statement 6, is the manifest absence of the similar statement:

25. ‘A biomedical diagnosis will not influence my treatment it is only the patient’s observable changes that matter’ (-3).

This indicates that biomedical information is very present in this Chinese medicine. Further expressing that the two systems make up a clearer picture together is the statement:

27. ‘Knowing the biomedical diagnosis alters what is seen in the tongue and felt at the pulse.’

This is placed at the most extreme position of all enactments (-5). In other words there is no question that one type of knowing obscures another, the view that these clearly add up to form a complete picture shines out.

Furthermore, the complementary relationship of the two systems is seen with the highest presence of all enactments given to the statement:

‘There is a clear distinction between Chinese and biomedicine in orthopaedic practice, biomedicine treats only the muscles and bones whilst Chinese medicine relies on channels and *qi*’ (+3).

This highlights an interesting difference from the other enactments including Enactment One that otherwise shares some similarities. That difference is that in this Enactment channels and *qi* are an ontological reality, they are present and part of what Chinese medicine is looking at. In contrast the other enactments are othering this statement, as seen with placements; Enactment 1(-1); Enactment 2 (+1); Enactment 3 (0); Enactment 4 (0); Enactment 5 (+1); Enactment 6 (+2).

This position is supported through looking also at the relative placement of the statement:

32. ‘Biomedicine is the facts, Chinese medicine is another way of looking at them’ (-2).

This Enactment others it, thereby concealing the ontology of a Chinese medicine body to exist as well as a biomedical one, for then the main story of the two medicines making up a whole would be challenged. Whilst Enactments One and Three exclude the possibility of a Chinese medicine body as they allow the presence of this statement (+3) and (+4) respectively. What then is Enactment Two saying by apparently also giving this statement presence (+3)? The difference is that Enactment Two accepted multiple realities, so for Chinese medicine to look at another body of knowledge or practice and to see it differently does not negate the existence and validity of its own.

Also othered in this Enactment is the possibility that one system is more comprehensive than the other:

40. 'Biomedicine understands the workings of the body, Chinese medicine can only know a part' (-1).

Exemplars commented in the post sorting booklet; 'each only knows a part' and 'no, they are both perspectives that try to make sense of facts, some of which are the same for both biomedicine and Chinese medicine (e.g. symptom of 'feeling sick') some of which are distinct (e.g. wiry pulse).'

There is, in this Enactment, echoes of Enactment Two with its acceptance of modernity and all that that holds as belonging to Chinese medicine in the modern age. It is, unlike Enactment Five, able to assimilate innovations:

15. 'Using stethoscopes, blood tests etc. are a natural progression into the 21st century and so are characteristic of modern Chinese medicine today' (+4).

They extend this version of Chinese medicine into modernity and also all that that is associated with modernity. These technological tools are seen as the application of modern Chinese medicine. Here practice can be viewed as creatively adapting concepts for new conditions (Pickering, 1992). Chinese medicine's encompassing of such technologies and knowledge arising from their use moves the social field of practice into what is dominantly seen as 'medical' in modern society. Adopting / utilising such objects place Chinese medicine practitioners in relation to other 'medical' practitioners. But this is not about gaining status, manifestly absent is:

19. 'using biomedical techniques in my practice gives me a higher status than 'pure' Chinese medicine practitioners' (-3).

Rather it is saying that Chinese medicine belongs in the modern world as a legitimate profession.

To summarise, this Enactment is one operating in an influential position in relation to Chinese medicine in the West and particularly in the wider socio-political sphere; it represents the promotion of the profession rather than of individual practitioners. That is, the emphasis is not so much on the relative status of practitioners, but more on the validity of Chinese medicine as a practice in the modern world. It is characterised by the ability to assimilate both other Chinese medicine viewpoints along with aspects of biomedicine, particularly modern technologies, as with Enactment Two, it serves to extract these from the sole domain of biomedicine. There is the understanding that together, a clearer, more complete picture is available to the practitioner. The one true reality that exists out there can be more completely discovered using tools from both systems. Each of which provides an insight to part of this reality. The relationship between the systems is non-conflicting; they complement each other.

5.13 Conclusion

Through this chapter contemporary Chinese medicine is seen to be many things. There are certain similarities between these; points of overlap. Yet each retains its own character. They share widely different epistemologies and the question arises of whether the knowledge of one excludes that of others. As each correlates to some extent with each other there are certainly points of communication. Furthermore, the enactments are formed by those practitioners who strongly represent that Enactment of Chinese medicine, yet we find other practitioners, such as the oldest octogenarian described above, who cross Enactments; showing strong allegiance to more than one Enactment. So whilst the enactments have a distinct identity they appear to not be exclusive of knowledge in other Enactments, or at least not for all practitioners. The following chapter will look at theories that seek to explain such a situation previously described in the Chinese medicine literature, but not formerly demonstrated in practice.

This chapter has raised another important consideration. These seven enactments are given equal importance for describing diversity of Chinese medicine practice. However, they do not yield equal power; a topic touched on in Enactment Three where one person reported that some were worried that Chinese medicine would disappear into one medicine, effectively engulfed by the hegemonic power of biomedicine. Each Enactment can also be seen as strategies that arise from this threat, the implications of which are discussed in the following chapter.

Chapter Six: Results and Analysis, Part Two; Discussion

6.1 Introduction

This chapter is concerned with the practical implications of the data. It aims to return to the knowledge theories previously introduced and explore how explanatory these are for this data. How practitioners utilise the knowledge of each enactment is considered, along with the implications of power differentials between enactments.

I ask if practitioners are bound to one body of knowledge that excludes all others or do practitioners move between the different bodies of knowledge formed in each enactment and if so, how is this practically achieved? In effect, this is asking if Unschuld's (1987) conjecture, that practitioners may think in an 'as well as' way, is a reality and if so how is this realised? In addition, can the obscuring of knowledge that Kuriyama, (1999) so convincingly argued for, be overcome? Furthermore, can practitioners embedded in the widely accepted realist perspective, based on what Unschuld (1992) calls an 'either/or' Western logic, move between contradictory bodies of knowledge when Unschuld (ibid) clearly argues that the two cannot exist side by side? He holds that an 'either/or' logic cannot exist with an 'as well as' logic.

Secondly, power is considered. While it is a quality of Q methodology to uncover the range of diversity thus providing a voice for each enactment described. Nevertheless, at the macro level these enactments do not wield equal power. How these inequalities in power impact on Chinese medicine in its many forms today needs discussion, particularly in relation to practitioner education and designing research of Chinese medicine.

6.2 Similarities Between Enactments

Having described the range of diversity of Chinese medicine practices it may at first appear counterproductive to group them. However, it is not just the

differences that are important but also their similarities. Areas of shared opinions or at least similar opinions can be pivotal if practitioners wish to understand another enactment's view point. Furthermore, such pivots may provide an access point for practitioners to be part of different enactments; a place where one can enter a different reality; where one knowledge base can be put down and another picked up.

The enactments can be grouped in various ways. The correlations between each are a useful starting point. Leaving aside, for the reasons laid out in the previous chapter, the uninterpretable Enactment Six, the correlations between remaining enactments are shown in Table 26.

Table 26: Correlations between Interpretable Enactments

2 and 4 (0.5110)
1 and 7 (0.4998)
1 and 3 (0.4980)
3 and 7 (0.4276)
1 and 4 (0.4262)
4 and 7 (0.4189)
2 and 5 (0.4179)
2 and 7 (0.4151)
2 and 1 (0.3630)
1 and 5 (0.1677)
5 and 4 (0.1311)
5 and 7 (0.1311)
3 and 4 (0.1120)

2 and 3 (0.0987)
3 and 5 (0.0886)

6.3 Groupings of Enactments

Taking the two highest correlations for each enactment and the two lowest, the following groupings manifest;

Enactment One: A Modern, Independent and Equal Medicine; the highest correlations are with Enactment Seven: A Pragmatic Blend and Enactment Three: A Biomedical Resource and lowest with Enactment Five: A Way of Being and Enactment Two: A Classical Medicine for Modernity.

Enactment Two: A Classical Medicine for Modernity; the highest correlations are with Enactment Four: A Grand Narrative and Enactment Five: A Way of Being and lowest with Enactment Three: A Biomedical Resource and Enactment One: A Modern, Independent and Equal Medicine.

Enactment Three: A Biomedical Resource; highest correlations are with Enactment One: A Modern, Independent and Equal Medicine and Enactment Seven: A Pragmatic Blend and lowest with Enactment Five: A Way of Being and Enactment Two: A Classical Medicine for Modernity.

Enactment Four: A Grand Narrative; highest correlations are with Enactment Two: A Classical Medicine for Modernity and Enactment Seven: A Pragmatic Blend and lowest with Enactment Three: A Biomedical Resource and Enactment Five: A Way of Being.

Enactment Five: A Way of Being; highest correlations are with Enactment Two: A Classical Medicine for Modernity and Enactment One: A Modern, Independent and Equal Medicine and lowest with Enactment Three: A Biomedical Resource and Enactment Seven: A Pragmatic Blend.

Enactment Seven: A Pragmatic Blend; highest correlations are with Enactment One: A Modern, Independent and Equal Medicine and Enactment Three: A Biomedical Resource and lowest with Enactment Five: A Way of Being and Enactment Two: A Classical Medicine for Modernity.

These can be tabulated as shown below:

Table 27: High to Low Correlations between Enactments 1, 2, 3, 4, 5, 7

	1	2	3	4	5	7
1	1					
2	0.363	1				
3	0.498	0.0987	1			
4	0.4262	0.511	0.112	1		
5	0.1677	0.4179	0.0886	0.1311	1	
7	0.4998	0.4151	0.4276	0.4189	0.1311	1

Table 27 indicates a clear grouping of, Enactment One: A Modern, Independent and Equal Medicine, Enactment Three: A Biomedical Resource and Enactment Seven: A Pragmatic Blend. However, Enactment Two: A Classical Medicine for Modernity, Enactment Four: A Grand Narrative and

Enactment Five: A Way of Being, do not form such a cohesive group. The clear group of Enactments One, Three and Seven who all correlate highly with each other and least with Enactments Two and Five, I will refer to as institutional Chinese medicines. As was described in the previous chapter each of these enactments is a product of institutional settings, either universities or hospitals and is thus answerable to the bureaucratic, economic and political demands of such a context. Each has its distinct characteristic, yet all, nevertheless, reflect demands of and are products of broad societal expectations of a medical system. In effect they represent the acceptable faces of Chinese medicine, as deemed by mainstream society. These clearly vary between countries resulting in the nuanced differences previously pointed out. For example, Enactment One emphasises the status of practitioners, whereas Enactment Seven emphasises the status of Chinese medicine as a profession. These enactments attract economic resources through their mainstream alignment. Thus, they hold power to steer the direction of the profession. These are the writers of textbooks, designers of research and educators of new practitioners.

As the other enactments do not so readily group it is interesting to see how they relate to each other, this is most clearly achieved graphically, as illustrated in Figures 5 and 6. When each enactment's position is placed side by side, they can be viewed as stepping stones giving each access to other worldviews.

All enactments correlates with one or more around the 0.5 level, even the more isolated Enactment Five shows such a correlation with Enactment Two. Enactment Two can be seen thereby as the messenger or link for other enactments into the knowledge of Enactment Five and also for Enactment Five to relate to the other Chinese medicines. Enactment Seven is the stepping stone between Five and One and Three. And so on. What does this mean in practice? What happens at points of correlation? I will answer these

questions below, though the importance of seeing the enactments as fluid first needs emphasising.

6.4 Straddling Enactments

It is useful to remember that enactments are formed by exemplars; practitioners whose viewpoints are strongly associated with that enactment's narrative. However, there are many other practitioners who closely associate with more than one enactment, rather than just one. Furthermore, all participants have some alignment with each enactment. This suggests that the knowledge of each enactment is in fact potentially available to all.

Where there are several people loading significantly on two enactments it indicates that those enactments are not entirely independent (Shemmings, 2006). Looking at the original data (see Appendix 6) it can be seen that, using the textbook definition of significance at $p<0.05$ level, there are many confounders; people who load significantly on more than one enactment, these are shown in Table 28 below.

Table 28: Participants Loading Significantly on More Than One Enactment

Participant	Enactment 1	Enactment 2	Enactment 3	Enactment 4	Enactment 5	Enactment 7
1		*	*	*		
3	*			*		
5	*	*				
7	*		*	*		
8	*			*		
9	*		*			
13	*		*			
18	*	*				
22		*			*	
25[71]		*		*		
29		*				*
30	*					*
31		*			*	*
32		*		*		
33		*		*		
37				*	*	
38	*			*		
39		*	*			

71 This is myself as researcher/participant, thus my own position in the research is explicit.

41	*	*		*		
42			*			*
43		*		*		*
44		*		*		*
Total	10	13	6	12	3	6

Using a statistical cut off point for significance is an arbitrary figure. In fact, all participants are linked to each enactment, to some degree. For some, this can be as a rejection of that enactment, indicated by a negative loading, as with participant one, the young Australian practitioner following an internationally known Chinese *qigong* master, who negatively loaded on Enactment Three. Therefore, whilst all these enactments of Chinese medicine are distinct, they nevertheless have porous borders allowing practitioners and thus knowledge to flow between them.

The question arises of how do practitioners negotiate paths between these differing Enactments? Do practitioners carry over knowledge from one that obscures the knowledge of another of are they able to see each with new eyes and if so how is this achieved?

It is argued that any practice of Chinese medicine needs to be internally consistent (Birch, 2011). However, the data shows that knowledge of each enactment can contradict that of another, just as it does in the literature. For example, statement nine: 'First understand the patient's *qi*, in clinic a cure cannot be achieved without working with the patient's *qi*,' is placed at different positions in Enactment Two (+4), Enactment Four (+5) and Enactment Five (-4). Yet there are people who confound Enactments Four and Five and Enactments Two and Five. The question arises of how can internal consistency be achieved when drawing on contradictory knowledges?

A necessary starting point is the acceptance of more than one Chinese medicine reality, with none necessarily being superior but each being appropriate in particular contexts. Practitioners would need to accept that this truth, as well as that can be true and realise that no single enactment holds the key to the 'real' Chinese medicine. Then the possibility of moving between them, enacting one body of knowledge when appropriate and leaving another aside becomes achievable.

In considering how this can be practically achieved I will draw on and adapt Star's (1988) concept of boundary objects, with the patient themselves serving as a boundary object. Furthermore, the application of this data is elucidated through the related concept; communities of practice (Star, 2010).

6.5 Defining Boundary Objects

Star & Greisemer (1989) provide the following definition of boundary objects:

> 'Boundary objects are objects which are both plastic enough to adapt to local needs and the constraints of the several parties employing them, yet robust enough to maintain a common identity across sites. They are weakly constructed in common use and become strongly structured in individual-site use. These objects may be abstract or concrete.' (p393).

The concept of boundary objects was developed around the realisation that science is heterogeneous, yet requires co-operation across domains, along with the observation that such co-operation is achieved without the need for consensus. Boundary objects are seen as stable enough to allow for translation according to different viewpoints whilst maintaining integrity in different contexts (ibid). A boundary object can be a concrete object, but also, as for the republican Chinese medicine practitioners, a shared goal

(refer to 2.4(ii)). Below I expand on both concrete and insubstantial boundary objects. I propose that the former serves as a mechanism for practitioners to make use of the differing knowledges found in the enactments of Chinese medicine described. The latter illuminates the importance of these research findings for research, education and practice.

6.5(i) The Phenomenological Patient as Boundary Object

Throughout this research many practitioners repeatedly said that it doesn't matter what is done, whether it comes from biomedicine or Chinese medicine, as in the end all there is, is the patient, the same patient who needs help. Whilst there may not be agreement about treatment strategy the same patient presents to be treated. However, I have already argued, following Kuriyama, (1999) that there are different bodies as they are known in different ways. So how does the patient serve at one and the same time as a commonly known boundary object yet be different bodies, differently knowable in each Enactment? A distinction arising from phenomenological enquiry is useful here; early twentieth century German thinkers including Husserl, Stein and Heidegger distinguished between the corporeal body (*Körper*), which Descartes earlier referred to as our visible self and the lived experience of embodiment (*Leib*) (Aho & Aho, 2009). This distinction is what inspired Merleau-Ponty (1962) to put forward his ideas in the Phenomenology of Perception. Using these concepts, the corporeal body is what is common for each enactment which is then translated into the phenomenological body unique to each enactment, moulded by the knowing of the patient and the practitioner. Studying clinical encounters has shown how the patient's experience of the interaction also actively shape the body and illness, with symptoms and what are considered medical problems being constituted in the interaction (Davis, 1986). Hence each enactment arises as differing bodies are known through the interaction of the patient, the practitioner and the context, or as Hsu (2008) calls them the three P's; patient, practitioner and paraphernalia.

Hence, the body of the patient allows for generalisability, at least at the gross level of recognition. Whilst the patient may be seen in many different ways by each enactment it remains both the site for Chinese medicine, in whatever form, to be practised and it is the patient towards which the treatment, in whatever form, is aimed.

6.5(ii) Illness or Disease Focus

Locally, within each Enactment, what is known, formed and enacted, depends on how a practitioner elicits the patients' illness experiences. At one end of the spectrum will be a focus on disease as an independent entity that can be measured to the exclusion of the patient; recognised through some measurement being outside the normal range. At the other end of the spectrum will be a focus on the patient as the body engaged with the world. The former is often associated with biomedicine, yet that is an overly simplistic division. Just as situating complementary medicine generally within a particular model is over simplistic (van Wersch et al., 2009). For example, whilst gathering the concourse for this research I observed practitioners associated with Enactments One, Three and Seven, routinely taking blood pressure measurements. In contrast to relying on measurements, some Chinese medicine doctors can diagnose a patient within seconds of them walking into the treatment room – how the body is carried, the sparkle or lack of it in the eyes, the colour of the face – these observations are synthesised to form an understanding of what is happening for the patient and thus what then needs to be remedied. However, there is also no biomedicine Chinese medicine divide here; I could have given the example of a doctor I worked with at St. Mary's hospital sexual health clinic who saved the life of one young woman through acting on a change in her behaviour. Sara (not her real name) had lived with HIV infection for over ten years. She attended outpatients weekly or phoned the doctor concerned to check if whatever she was experiencing was pathological. She had had several associated HIV infections, hence this behaviour was not unjustified though a little unusual in its frequency. One week the doctor asked if I had heard from Sara, he was worried that she hadn't called for over a week. He tried to phone her but

there was no answer, so he sent a postcard to her address, on it he wrote that he was worried about her and that she must contact the clinic immediately. Sara who lived alone had been in and out of a state of consciousness unable to get out of bed. Her ex-boyfriend came in regularly to see if she needed anything, but was unaware that such a condition was out of the ordinary for someone with HIV. He put it down to her having some bad days. However, the postcard woke him up and he called an ambulance. Sara was rapidly transferred to hospital where a diagnosis of drug induced acute idiopathic thrombocytopenia was diagnosed. Sara survived this condition needing inpatient care for over three months. This remarkable doctor[72] knew this patient through how she embodied living with HIV, thus a change in her behaviour was an indicator of pathology. There is no simple biomedicine - Chinese medicine divide in knowing a patient.

6.5(iii) Dr Shen Diagnosing by Looking

Several doctors in China repeated the opinion that an excellent Chinese medicine doctor just needs to look at a patient to make a diagnosis. Therefore, of the four methods of diagnosis, they considered observation as the most important. In 1994 I attended a seminar in the UK given by Dr Shen. Dr Shen was a famous Chinese medicine doctor from Shanghai who practiced in the USA. At the seminar practitioners presented him with difficult cases. One such case illustrates two very different ways of seeing the body. A distraught mother wheeled her son， who was in his early twenties, into the room. He was thin and could hardly sit upright. At the same time she brandished a picture of him taken two years earlier. In the picture he was standing as a bulky muscle bound athletic young man – this clearly for her was the son of which she was so proud. Dr Shen took one look at the photo and excitedly passed it round the room. See he said to us, look, he has no spirit in his eyes. In Dr Shen's experience, the illness had already taken a hold when this picture was taken. However, the mother and no doubt many

72 This doctor was extremely popular with patients and was always in demand. However, he had been reprimanded by management for 'getting too close to his patients.' In Sara's case it was fortunate that he did.

of us practitioners were looking at the strapping lad and not seeing what was so immediately evident to Dr Shen.

Our eyes were taught to register different things and we saw different things. Each enactment can thus elicit different knowledge of the shared but different patient.

6.5(iv) Knowing Different Bodies

One aim of a boundary object, as used by Star and Greisemer, (1989) was to achieve standardised methods. I diverge from that concept here and see the boundary object patient as the location that enables practitioners to diversify methods. It is the place where practitioners can put aside one way of knowing to enter another – in effect to know another body; a different patient emerges through a different way of knowing. Such a process can be likened to having a barrel of knowledges, from which a specific knowledge can be picked up and put down according to it's usefulness in a particular context. This is exactly as Unschuld's (1986) patterned knowledge described for the Chinese medicine literature. Hence, my use of the term does not require the object to remain the same across domains, just as with the differing anatomical understandings of the body seen in Figures 1 and 2, there are different realities that do not necessarily concur. When one takes the very different conditions of possibility of each enactment into account then the impossibility of an object remaining the same is evident.

6.5(v) The Body as a Coincident Boundary

In the original classification taxonomy (Star & Griesemer, 1989) boundary objects were divided into four types; repositories; ideal types; coincident boundaries and standardised forms, defined thus:

> ‘Repositories: These are ordered ‘piles’ of objects, which are indexed in a standardised fashion. Repositories are built to deal with problems of heterogeneity caused by differences in units of analysis.
>
> Ideal type: This is an object such as a diagram, atlas or other description which, in fact, does not accurately describe the details of any locality or thing. It serves as a means of communicating and co-operating symbolically – a ‘good enough’ road map for all parties.
>
> Coincident boundaries: These are common objects with common boundaries but different internal contents.
>
> Standardised forms: These are boundary objects devised as methods of common communication across dispersed work groups. These types of boundary objects result in standardised indexes and what Latour (1993) calls ‘immutable mobiles’ (objects which can be transported over a long distance and convey unchanging information). The advantage of such objects is that local uncertainties are deleted.’ (ibid, pp410-411)

Within such a classification scheme, which is not intended to be exhaustive, the body can be assigned as a coincident boundary. For each enactment gathers knowledge of the patient in differing ways. For example, Enactment Two utilises X-rays whilst Enactment Five rejects them as irrelevant. Enactment Three may depend on biochemical indices to assess progress, whilst Enactment One may use such data as a secondary strategic tool of speaking the right scientific language to show that Chinese medicine is as scientific as hegemonic biomedicine, whilst assessing progress itself through the complexion and colour of the tongue. Nevertheless, the common referent is the patient. That patient may be viewed as a network of channels, as zones of *yin* and *yang*, as muscles and tendons, as indices and normal ranges, whilst sharing the outline of the same patient. Just as in the original boundary object study, where the outline of California on a map, acted as a

boundary object which allowed the various groups of stakeholders to annotate it in entirely different ways (Star, 2010).

6.5(vi) Communities of Practice and Communities of Interest

Given the very different Chinese medicines found in each Enactment, the question of how a practitioner moves between them is answered through the body as boundary object. It is also necessary to consider how the different enactments can work together for the overall good of Chinese medicine. A community of practice involves people working and communicating together through which they forge an identity (Wenger, 1998). As such each enactment can be seen as a community of practice, each with a differing identity. A community of interest is formed when several communities of practice work together to serve a common goal (Arias & Fischer, 2000). That common goal is a non-concrete boundary object.

One example of a community of interest, previously discussed, is the republican Chinese doctors facing medical modernisers led by Yu Yunxiu who proposed a process to ban Chinese medicine (see Chapter Two). The disparate Chinese medicine practitioners worked together for the first time to challenge the proposed ban. Their common goal was to preserve Chinese medicine. As such the differing, previously competing practices of Chinese medicine; communities of practice worked together as a community of interest to achieve a common goal. Thus, the goal to preserve Chinese medicine became a non-concrete boundary object.

In Star and Greisemer's (1989) original study of Berkeley's Museum of Vertebrate Biology in the period 1907-1939 they identified the common goal across various groups, such as curators and conservationists, to preserve the natural fauna of California. Hence this served as a boundary object with differing translations of what this meant for the differing stakeholders. The republican Chinese medicine practitioners achieved their goal of defeating

the ban on Chinese medicine practice through accepting the need to scientise and modernise Chinese medicine. The caveat granted to achieve this common goal was nevertheless flexible enough for scientisation and modernisation to mean different things to the different practices of Chinese medicine, evidenced by the continuing diversity of Chinese medicine in China and the world today.

6.5(vii) Showing it Works; Common Goals as Boundary Objects

Today, a shared goal of providing evidence for acceptance by the powerful scientific community and thus access to the wealth of resources that such power holds, can potentially also unite the differing Enactments. Unity can also arise through the sheer necessity to survive at all.

Contemporary Chinese medicine, wherever it is practiced in the world, is dwarfed by the hegemonic power of biomedicine. One outcome of such a position is that Chinese medicine continually needs to justify itself answering the questions currently being posed by biomedicine in the UK context; is it safe, does it work? Those questions are not necessarily asked by those who consume Chinese medicine but are propounded by the structures and bodies - legal, educational, political, economic - that reinforce the dominance of biomedicine. The imposition of such questions provides an opportunity, for the enactments identified, to act as a community of interest seeking to present Chinese medicine as a valid and safe treatment to these external powers. It is to the benefit of each enactment that this is as convincingly achieved as possible. The goal of showing Chinese medicine in a positive light can serve as a boundary object to allow for refinement in the design of clinical research studies.

Whilst each enactment of Chinese medicine can benefit from evidence showing that Chinese medicine is effective, they are not all equally able to

provide that evidence. There are inequalities in power and thus access to resources between the enactments.

6.6 Diverse but not Equal

Despite repeated reporting of the diversity of Chinese medicine throughout the world, in modernity, Chinese medicine is nevertheless often discussed as if it were one body of knowledge and set of practices (as are for that matter all other systems of medicine). Ethnographies and historical studies can perpetuate this myth through seeking to explain 'Chinese medicine' through emphasising broad diachronic and social influences, without contextualising the variation that exists at the micro level that is clearly seen in this research. (See for example; Karchmer, 2010 and Unschuld, 1985). Other ethnographers (Taylor, 2005) acknowledge diversity but focus their research on one part of that diversity. Hence depth is achieved at the expense of breadth.

The enactments of this research show that, despite being present at the same time and some in the same place, their different conditions of possibility lead unsurprisingly to very dissimilar practices, which do not wield equal power. Each enactment reflects the values and beliefs of the very local culture (van der Geest & Finkler, 2004). A local culture cannot be defined therefore by locality in a geographic sense; Enactments One, Three and Five provide a pertinent example, as all exist in close proximity to each other, in Beijing in 2008. Instead culture is taken to be about people, languages, behaviours, beliefs, institutions and interactions between people (Wagler & Baker, 2004). Each enactment can be viewed as a local culture of Chinese medicine created through dialogue by those within it. Nevertheless, as shown above, borders are permeable, the potential for a practitioner moving between these local cultures of practice becomes possible through the patient as boundary object. The resultant permeability of each enactment can be seen as a strength rather than a weakness. Similarly viewing a culture's ability to integrate unfamiliar artefacts and people, can be viewed as

a power of that culture, rather than as a weakness (Sahlins, 1993). Hence, those enactments with access to infrastructure and funding, could be called the most powerful yet the permeability of enactments allow for the least powerful to influence the most powerful.

In comparing the enactments of Chinese medicine the subtleties of local influences is evident. There are ramifications here for Chinese medicine research, particularly when scientific evidence of efficacy is sought. Each enactment is not only a different practice but none can be captured for more than a moment in time. The very setting of doing research causes a practitioner (and for that matter patients too) to alter what they do even when they are given reign to follow normal clinical practice. For example, it has been shown (Paterson & Britten, 2008) that whilst patients felt treated as a whole person in both private traditional acupuncture practice and traditional acupuncture practice in a NHS setting, patients, in a research trial setting did not feel treated as a whole person. For as Bowker (2010) points out, all knowledge is local, especially scientific knowledge; science in its search for universal truths sets up a highly specialised local environment:

> ‘One about which you can say ‘all other things being equal’ (that much parroted phrase of physics textbooks) – a good local environment for universal truth excludes truck rumblings if you are looking for gravity waves, stray molecules if you are looking for a pure reaction and so forth.’ (p138).

It is thus impossible for acupuncturists to do ‘normal[73]’ clinical practice in a research setting, as every practice varies according to the very local influences including being an actor in a scientific trial. Just as the Chinese

73 That is, unless research practice becomes the ‘normal’.

medicines of each enactment are different, these are also constantly changing.

6.6(i) Enactments Seeking Integration with the Dominant Medical System Today

Chinese medicine is a fringe medicine wherever it is practised. One strategy for survival under such conditions is to align itself with dominant biomedicine, using the infrastructures that exist, thereby gaining credibility through such association. Chapter Two considered the impact of such a strategy on Chinese medicine research. Here it is pertinent to ask how each enactment responds to such a scenario.

One could conjecture that Enactment Seven: A Pragmatic Blend, with its emphasis on defining Chinese medicine in response to external political and social powers – would view integration as a creative challenge. In contrast, Enactment Five – which values separatism in order to preserve an 'authentic' Chinese medicine – would shun such a challenge, as this approach is aware of knowledge being lost rather than gained through the process. Not only would this type of Chinese medicine actively eschew integration into a modern healthcare system, it would also be incompatible with the demands of such a system, for example standardised procedures, normative standards and clinical governance. Although this Enactment does contain all these factors, they are dictated from within and not without. A further standpoint is seen in Enactment Three. This Enactment would most likely view integration as a way to get rid of all that does not fit a biomedical material reality, such as *yin yang* theories, which it views as pseudoscientific and thus not real. Therefore, integration would offer Enactment Three the opportunity to eradicate large parts of the Chinese medicine integral to other Enactments.

Integration will bring constraints on practice and these necessarily alter practice, so that an adapted Chinese medicine would once again emerge, this time prioritizing parts that can be validated by a biomedical understanding, with a moratorium on other practices. The assimilation process works in both directions whereby a new integrative medicine will emerge; biomedicine receives useful additions whilst at the same time biomedicine is increasingly incorporated into Chinese medicine. For example, it dominates Chinese medicine as the arbiter of safety; potentially herbs could be safely used only when liver function tests are carried out. Furthermore, it defines clinical progress through various biochemical indices which largely replace a phenomenological assessment based on looking, asking, listening and touching (*wang wen wen qie* 望聞問切), long known to Chinese medicine.

However, for those enactments willing to join the community of interest, with the boundary object of a commonly shared goal to provide evidence that Chinese medicine is effective, the more powerful enactments can be moderated through dialogue with the less powerful practices.

6.6(ii) Power to Define Chinese Medicine

Q methodology research can be said to be undemocratic in that it considers all enactments of Chinese medicine equally. However, this is intended, it is a strength of the method rather than a flaw as has been suggested (Billard, 1999), erroneously in my view. Some represent the majority view others are the hidden minority views. Nevertheless, these Chinese medicines do not exist equally in the wider socio-cultural and historical context, so which of the enactments here wield power over research agendas?

Access to resources such as funding for research, publications and education varies. The group of Enactments (1,3,7) referred to as institutional Chinese medicines are in a powerful position in terms of access to

resources. They will be able to thereby influence the direction of Chinese medicine on a large scale. Through such bodies research is designed and carried out. Publications that become textbooks are produced and the next generation of practitioners are educated. They set up and perpetuate normative practice and are answerable to those government and institutional structures that accommodate and regulate them. They are thereby also restricted by the rules of such bodies and the implicit understanding that biomedicine holds a hegemonic position as detailed in Chapter Two.

6.6(iii) Power Through Being Scientific

What are the possible directions for such institutional Chinese medicines? If power is achieved through closeness to hegemonic science then Enactment Three would undoubtedly hold the most power and thus influence. It rigidly adheres to an either/or knowing, premised on there being only one valid truth. The following interview excerpts undertaken during gathering the concourse indicate this viewpoint, they are from practitioners exemplifying Enactment Three:

One practitioner (A) stated:

> ‘Western medicine creates a kind of unified criteria for the diagnosis for therapy actually for everything.’
>
> ‘I have to know what’s going on in the whole body’ [so I use a Western medical diagnosis.]
>
> ’Actually quality of life is a criteria from biomedical sciences.’
>
> ’We need more and more you know biomedical sciences to support TCM[74] research…… to follow the mainstream of the scientific.’

74 Acronym was used by the participant himself.

Another (B) stated:

> ‘I think science, scientists, science is just the one same one, the only one.’
>
> ‘My first consider(ation) is what is the diagnosis of Western medicine.’

Such statements illustrate biomedicine as the reality towards which Chinese medicine sits subordinately, with science, exemplified by biomedicine, equating with the truth to which Chinese medicine should aspire.

6.6(iv) Eroding the Domain of Chinese Medicine

Chinese medicine is here subsumed within the biomedical framework – opposite to that observed by Farquhar (1994), suggesting that she observed practitioners, practicing in an institutional setting, who would nevertheless form a different enactment of Chinese medicine. When Chinese medicine is subsumed within biomedicine’s framework this will inevitably impinge on practice by marginalising it. Chinese medicine’s role is then constantly rewritten in relation to changing biomedical treatments.

(A) stated:

> ‘Chinese diagnosis differentiation… just like the sub, sub, parts of the diagnosis.’
>
> ‘Chinese medicine can be used when Western medicine has poor effect.’

> The use of a biomedical reductionist framework to view Chinese medicine, results in the treatment of diseases, not people.'

(B) stated:

> 'AIDs disease at the present I don't know which TCM or formula can treat it.'

This Enactment is the dominant version of Chinese medicine in terms of state sanction in China, as well as acceptance by the medical establishment in the West. This bestows it with the power of legitimisation and the ability, socially to control this version as the 'true' Chinese medicine. It perpetuates the rhetoric surrounding medical practices where biomedicine is placed in opposition to Chinese medicine, as if they were neatly bordered unities. The reality, as glimpsed through the Enactments described here, is however, far more complex, there are a spectrum of inter-related Chinese medicines, epitomising differing epistemological frameworks.

Chinese medicine under these circumstances is relegated to only treat what biomedicine cannot. Thus, if biomedicine has an answer it is preferentially used as the two become one practice, even if Chinese medicine also offers an effective treatment. In such a situation eventually a loss of skills will be the likely result according to the 'use it or lose it' scenario.

6.6(v) Globalisation Generating Heterogeneity not Homogeneity

Interestingly, discussions with doctors moving from mainland China to practise in England show how Enactment Three is not as readily available to them in the latter. Since legally these doctors cannot prescribe the biomedical drugs that they would customarily have used in China. I have

heard some excitedly recounting discovering that Chinese medicine treatments actually work as a substitute for their more familiar drugs. Those doctors will never have had reason to use Chinese medicine for certain conditions in their former setting for two reasons. Firstly, they are taught to use biomedicine, especially for acute conditions, in preference to Chinese medicine. Secondly, there is an economic pressure; doctors receive a higher income when prescribing biomedical drugs. Hence the power any enactment holds is directly related to the context in which it is practised.

The spread of Chinese medicine to new contexts reduces the power of any enactment tailored to another context. Globalisation, sometimes seen as a homogenising force can actually provide new conditions that create new Chinese medicines. A practitioner performing Enactment One or Three in China is surrounded by the tools, technology and expectations enabling such enactments. Working within state hospitals demanding first a biomedical diagnosis (Karchmer, 2005) a patient with an acute cough will lead to the collection of a sputum sample tested in the hospital laboratory, providing the identification of bacteria. The goal of treatment can simply be destruction of the bacteria. The practitioner gains the status of a biomedical doctor through prescribing a biomedical drug as well as reaping the economic benefits. A Chinese medicine pattern diagnosis will be belatedly added to the medical record justifying Chinese medicine alongside biomedicine, more as an illusion of integration than a reflection of actual integration. The laboratory itself has agency in this Chinese medicine. The same practitioner practising in the UK has very different choices. The legal system denies them access to prescribing such a treatment. There are no laboratories at the back of the high street shop front in which they are situated. Their interaction with the patient with an acute cough requires them to enact a very different Chinese medicine. They theoretically have known the possibility of other Chinese medicines, but the experience of enacting these has been previously denied. In Pickering's (1992) terms, in China there is resistance to the Chinese medicine that is accommodated in the UK.

Every enactment operates in a particular context and thus has unequal access to resources needed to achieve such evidence. The enactments endowed with power through attracting funding to carry out such research and through obtaining political approval as part of main stream institutional settings, such as operating within universities, can design, carry out and run such research, the results of which impact on each and every Chinese medicine Enactment. Given this situation it seems logical to engage the full range of diversity of Chinese medicine in such an endeavour. I will describe an existing research study to outline how important such consultation can be.

6.7 Diversity Ensures Survival, Working Together Without Consensus

Taking Enactment Seven: A Pragmatic Combination, as a model for designing research I will show how such a process benefits when the knowledges of other enactments are used as critical tools for viewing the research design formed by the logic of Enactment Seven. The enactments first need acknowledgement of other Chinese medicines and secondly acceptance of the benefit of disagreement rather than consensus. This brings me back to the point made in earlier chapters, despite it being taken for granted that diversity ensures survival in many domains, nevertheless, medical systems in some contexts appear set in the opposite direction. Thereby, nonconformity is seen as bad practice with a homogenous system the ideal. Resulting in a situation in which Chinese medicine practices compete and attack each other in claiming to be the authentic version rather than support the uniqueness of each. Of note, is how quickly contexts can change; Chairman Mao in a 1957 speech announced a new movement:

> ‘Letting a hundred flowers blossom and a hundred schools of thought contend is the policy for promoting progress in the arts and sciences and a flourishing socialist culture in our land’.

However, this movement was very short-lived, as the scale of criticisms put forward led to ruthless suppression of those voicing such dissent in the anti-right campaign that followed.

Enactment Seven, one of the institutional Chinese medicines identified showed high correlations with most of the other enactments including One, Three, Four and Two. It could define itself in relation to these and pragmatically answer to the demands of various audiences at once. This Chinese medicine wears various hats; those of scientists; leaders; educators; legislators; businesses; practitioners and researchers. Hence this Chinese medicine interacts with a broad range of social worlds and thus whilst benefiting from the resources available via each, it is answerable to a diverse range of demands.

One piece of recent Chinese medicine research (Patching van der Sluijs et al., 2009) I would place firmly in the domain of this Enactment. It was carried out in the West (Australia), designed by researchers at a lead government funded institution and practitioner researchers with a history of obtaining funding for research into Chinese medicine. The products used and funding was supplied by an Australian company that epitomises the 'add on' nature of valid knowledge in this enactment. The company aims to be:

> 'A leader in innovative, safe, effective Chinese herbal medicines.' (Global Therapeutics Pty, Ltd., 2011).
>
> 'Medicines are wholly or partially based on traditional Chinese herbal combinations. Some medicines are potentiated with one or two internationally respected and scientifically validated herbs.' (ibid).

It trades according to these claims:

> ‘Fusion Health products include ancient and modern Chinese formulas and blend scientifically researched and effective Chinese herbs with a selection of proven Western herbs. All Fusion Health medicines are manufactured in Sydney, Australia to natural pharmaceutical standards in accordance with the latest guidelines from the Australian Therapeutic Goods Administration (TGA). Fusion Health products are energetically balanced formulations with optimal ingredient levels maximizing potency and efficacy. Fusion Health products contain NO added sugar, yeast, wheat, milk proteins, preservatives, artificial colours, flavours or sweeteners.’ (ibid).

Hence it is taking knowledge validated by different paradigms and adds them together. This makes total sense in Enactment Seven; it is a pragmatic combination assuming that if two approaches are known to work adding them together will be more powerful, the company refer to potentiating Chinese herbal medicine with the addition of Western herbs. It is interesting to note the rhetoric contained in these websites. It uses words to gain credibility in a scientific sense – ‘scientifically’ – ‘effective’. It answers to a culture of health and safety – ‘standards’ – ‘latest guidelines’ – ‘TGA’. Then it accommodates to current trends in consumer culture – ‘no sugar’- ‘no yeast’ etc. and connects with alternative medicine with the use of ‘energetically balanced.’ In addition, it claims a link to ancient knowledge – ‘ancient Chinese formulas.’ In effect this company is answerable to a wide range of audiences, with many different expectations; it is unlikely to be able to please all these at one time.

When these claims are viewed from the perspective of knowledge in other enactments there would be questions over the validity of attempting such a combination – particularly from Enactment Five with its quest to stay separate to preserve a pure form of Chinese medicine. Enactment Four would undoubtedly take to task the suggestion that their products are energetically balanced. For Enactment Four may well consider the use of a

herb scientifically tested to be effective for a condition as part of its repertoire but not in the way carried out here. This study used a combination of Chinese formulae to tonify the kidneys and clear heat based on the Chinese herbal formulas, *er xian tang* and *zhi bai di huang wan*,[75] along with a herb cimicifuga, black cohosh. The logic of this addition to the Chinese herbal formulae is that it had been shown to have promising results for treating menopausal hot flushes in reviews of scientific research trials. A very pragmatic combination that assumes the two approaches together will add up to a more effective result. However, this combination, when considered through the knowledge of Enactment Four, would take cimicifuga - and ask what are its energetic qualities according to Chinese medicine? The resultant answer would lead it to dismiss this combination as therapeutically ineffective precisely due to its energetic imbalance.

Cimicifuga is classified as a Western herb in this study. However, it is also used in Chinese medicine. It is called *sheng ma* 升麻 and is classified as an acrid and cooling herb. Acridity has the quality of drying and dispersing. *Sheng ma* is indicated for short term use only and is used to aid in the eruption of rashes, such as measles. In addition, it guides the actions of other herbs to the upper part of the body, which could potentially therefore, promote hot flushes to rise. Hence, it does not combine logically with the formula aiming to tonify the kidney *yin* and *yang* and descend heat and it is absolutely contraindicated for long term use. In Chinese medicine it would be used for days at a time whereas participants in this study received it for sixteen weeks. As such Enactment Four would have predicted that this herb rather than enhancing the formula's effect on reducing hot flushes could actually increase hot flushes. In this example, Enactment Four would provide the insight that pragmatically combining these herbs would not lead to best practice.

75 *Er xian tang* is a formula designed in the 1950's made up of *xian mao, yin yang huo, ba ji tian, huang bai, zhi mu* and *dang gui, zhi bai di huang wan* is a variation of a formula designed in 1119 made up of *shu di huang, shan zhu yu, shan yao, fu ling, mu dan pi, ze xie, zhi mu* and *huang bai.*

Through the knowledge of Enactment Two, firmly rooted in classic texts, the energetic qualities of cimicifuga - *sheng ma* may be considered and lead to asking, if this can successfully teat menopausal hot flushes, what pattern is it treating? This could potentially lead to linking this herb with very different herbs to those in the study, herbs which would treat flushes as a surface symptom involving stagnation of heat at the surface that needs dissipating. This contrasts with the herbs in the study which lead heat down to the kidneys. That Enactment would also be able to predict that the herbs used in the Australian research mentioned above would fail to be effective. Furthermore, potentially a different combination of herbs, to that arising from Enactment Four, could be proffered.

A further adaptation of the formula may be offered through Enactments One and Three. It is likely that the active ingredient of triterpene glycosides found in *sheng ma* would be considered the key to the herbs success. Logically then other Chinese herbs previously used to treat menopausal hot flushes would be screened and those containing triterpene glycosides would be used alongside Cimicifuga - *sheng ma*.

In terms of scientific research into Chinese medicine this Enactment Seven type study is of a high quality. Criteria to judge the design, implementation and reporting of randomised controlled clinical trials, such as randomisation procedures, outcome criteria, inclusion criteria, use of a credible placebo etc. are of a high standard. Furthermore, this standard is reflected by the fact that this study was published in a high impact (impact factor 3.082, 2009) biomedical journal, following peer review. As such it reflects the power of this Enactment; it is speaking the correct language to be seen as credible by the scientific community and would be precisely the type of research to receive funding. However, the findings of the study indicated that the formula tested could not be recommended for the treatment of menopausal hot flushes. This is negative in several senses. Not only is it a negative clinical effect, it is also negative for Chinese medicine in general, not just for the Chinese medicine

as practised in Enactment Seven. Whilst the authors identify possible weaknesses in the study design, including lack of adjustment of the formula for different women, which they state would be normal practice in Chinese medicine, they nevertheless never challenge the assumption that combining knowledge from different spheres leads to best practice.

This study thus highlights the value that could be gained if each enactment communicated with each other. If each Chinese medicine enactment had had the opportunity to view and critique this study design and those comments were then taken as valid, resources could have been saved and an array of possible other study designs considered. With limited resources it is likely that the differing solutions offered by different enactments would be first applied in normal clinical practice, leading to those showing early positive results then being tested in a formal clinical trial research setting.

The value in these enactments for research design lies therefore in the identification of lack of consensus when underpinned by coherent reasoning even when that reasoning uses different logics. In addition, co-operation and communication between enactments could expand the diversity of Chinese medicine; different enactments create different solutions to what is otherwise an ineffective formula.

6.7(i) Kuriyama's Obscuring at Work

The addition of a herb scientifically tested to a Chinese formula is not automatically flawed, nevertheless, in the above example it proved to be. This is a good example of how one type of knowledge obscures that of another. In this case cimicifuga's energetic qualities were entirely obscured by biochemical indices. The herb was seen as having an active component to which it was standardised to contain not less than 2.5% triterpene glycosides calculated as 27-deoxyactein (Patching van der Sluijs et al., 2009). Furthermore, taking the herb to be Western also obscures the fact

that it is also a Chinese herb; this blind spot was totally unacknowledged in the study, for it could not be known from within this Enactment's logic of combining information pragmatically alone. Nevertheless, from the position of acknowledging multiple and equally valid Chinese medicines, this Enactment's strength is that more than any of the other Chinese medicines it is likely to change perspective once the knowledge obscured by its own position is revealed through another enactments knowledge base. In this way Kuriyama's obscuring becomes a temporary state.

6.7(ii) Challenging Consensus

Currently a popular method of designing effectiveness studies of Chinese medicine for a range of conditions is through following the Delphi process (For example, see Flower et al., 2007).

Delphi rejects minority views to obtain the power to represent a certain version of Chinese medicine. It is predicated on the essentialist assumption of there being a best practice of Chinese medicine and that co-operation relies on consensus. It involves choosing a group of expert practitioners to go through several rounds of discussion, which can be face to face but usually also involves replying to questionnaires. The aim is to reach a consensus on best treatment. During this process there is little room for challenging the means by which effectiveness is best shown, this is taken as a given, which in the case of Chinese medicine in the West is currently considered to be a pragmatic controlled trial producing effectiveness data.

However, there are certain problems with such a Delphi process beyond the unchallenged assumption of how to carry out research. In addition, there is likely to be a defining of 'experts' through the view of the most powerful Enactment. Thereby minority voices that have emerged through this study would be unlikely to be included; or if included their opinions quickly discarded. Hence the blind spots that each enactment will hold will not be

exposed. It also rests on the assumption that there must be consensus for co-operation to occur, whereas observational studies of co-operation across disciplines have shown that there is rarely consensus, yet co-operation occurs, as Star (2010) states:

> ‘My initial framing of the concept *(i.e. boundary object)* was motivated by a desire to analyze the nature of cooperative work in the absence of consensus. Many models, in the late 1980’s and continuing today, of cooperation often began conceptually, with the idea that first consensus must be reached, and the cooperation could begin. From my own field work among scientists and others cooperating across disciplinary borders, and two historical analyses of heterogeneous groups who did cooperate and did not agree at the local level, it seemed to me that the consensus model was untrue.’ (p604). (Italics added, original spelling maintained).

Delphi would eradicate the differing social worlds of Chinese medicine identified in this research reducing rather than maximising diversity, so essential to survival. Yet that diversity can be usefully maintained when a common goal can serve as a boundary object between enactments whereby they can work productively together as a community of interest.

6.8 Conclusion

Above I have shown that an abstract entity, a common goal, as a boundary object can serve as a means for the differing Enactments; communities of practice to communicate with each other, whilst maintaining diversity, for mutual gain as a community of interest. I have also suggested the means by which individual practitioners can relate to the knowledge of each enactment whilst allowing for the knowledge of each enactment to be seen without necessarily obscuring it. The patient can be known differently by the different Enactments. The patients can be seen as plastic and interpretable. With the

possibility of departing one patient body and arriving at another, yet with that patient, as site and aim remaining generalisable to all. The patient thus serves as a boundary object, herself indistinguishable from outside an Enactment, yet very different from within each. The boundary object patient thereby opens up the possibility for the enactments to remain autonomous whilst also being connected.

There are; ‘multiple, dynamic, performative, interacting’ (Pickering, 2011) Chinese medicines with the shared spaces of patients and sometimes common goals. However, those enactments that I previously called institutional Chinese medicines - Enactments One, Three and Seven, have the resources to influence education, research agendas and thus to a great extent the future of role of Chinese medicine and its practitioners. Furthermore, these can communicate with other enactments when all enactments act together as a community of interest.

In the following chapter I reflect on the process of undertaking this research, consider its limitations and draw final conclusions.

Chapter Seven: Reflections and Conclusions

7.1 Cultural Challenges: *Guan Xi*

In China one's connections to other people are considered extremely important (Gold, et al.,2002). The term used is, *guanxi* 关系, literally relation system, translated as relationships or connectedness and this is an integral part of Chinese culture. *Guanxi* governs social relationships. Through this system, that some have likened to the Western concept of social network theory (Hammond & Glenn 2004), one's assigned role prescribes certain behaviour and most importantly, for me in the research setting, regulated the flow of information.

Explanation of the *guanxi* connections that took me to the CACMS will show how, what can start in one field, has ramifications in unconnected areas. *Guanxi* therefore serves as a force to treat others with due respect at many levels of society. Through working in the United Kingdom (UK) for a Chinese publisher from Beijing I became connected to the CACMS. A Chinese medicine doctor who spoke barely any English contacted this publisher in the UK looking for work. The publisher asked if I, as a practitioner working in a hospital setting, could advise her. In fact both of us were unable to directly help such a person but in the spirit of *guanxi* a meeting was setup and the Chinese doctor was able to lay out her many qualifications hoping that our connections would lead to some position for her. Through explaining how the NHS worked and assisting her with language we established a loose bond. This doctor had previously worked at the CACMS and later informed the publisher that a delegation of Chinese medicine doctors including a professor would be travelling to the UK to visit various universities. Hence I was able to meet the professor and other delegates in the UK and these became my link in China, giving me access to the CACMS.

After arriving in Beijing I contacted the professor and a meeting was arranged. As she spoke no English and I very little Chinese, a master's student able to speak some English (who later became my translator) was present as well as the head of the department who spoke good English. After explaining what I planned to do I was left alone, whilst my proposal was discussed. Shortly after I was told that I would need to pay $3500 US dollars to be allowed to interview doctors. It seemed that this figure had been pulled out of the air and when I suggested that this was beyond my budget and that I would have to go elsewhere I was again left alone, this time for an even shorter time. On their return the professor offered an exchange whereby I would gain free access to doctors, in exchange for two hours English language teaching per week. This was rapidly agreed upon, whereupon a contract needed to be drawn up. The contract needed to acknowledge that the CACMS agreed to facilitate me in undertaking this PhD research purely in the spirit of international co-operation whereby they were receiving no monetary gain. Potentially more restrictive was the clause that I only undertake my research through doctors introduced to me by the CACMS. Furthermore, the research was to be kept a secret from other Chinese medicine doctors.[76] The main factor here was *guanxi*; the professor was asserting relative power in our relationship. However, as I was left to draw up the contract I could subtlely use English in such a way that it allowed for more flexibility than the secrecy demand implied. Also, inherent in Q, is that generating the concourse occurs at many levels, not just resulting from formal interviews. In other words it was unlikely that this concept was easily carried across in translation at the time. I could also bring in another *guanxi* relationship to loosen such controls; that of myself and my supervisor. The supervisor's role is viewed as extremely hierarchical in China and there would be no doubt that I had no option but to obey his instructions. So I used this to exclude the (unspecified) connections in China that my supervisor asked me to follow up. Whilst these activities could be construed as unethical if the demands were taken to the letter. However, given the context I felt

76 There is still a lot of secrecy in China in relation to foreigners, such as, mentioned previously, when the translator was told not to say anything negative to me and the shock shown when I mentioned such things as the two tier entry to study medicine with those gaining top grades allocated to study biomedicine whilst those with lower scorers allocated to study Chinese medicine.

comfortable that I would not be causing offence. There is also the dimension of the role of the contract as simply being seen to be following correct administrative procedures. The contract would be stamped in red with the official stamp of the CACMS, the red stamp being critical for authenticity and approval in China. So whilst the contract most likely would not be used again, it served several purposes other than the words it contained by being in place.[77] Such challenges, arising when carrying out cross-cultural research, can give rise to creative solutions that enhance rather than limit the project.

7.2 Limitations

Q methodology's rigour is contributed to by our desire to structure and ascribe meaning to events /stimuli (Watts & Stenner, 2005). As has been reported by previous Q researchers, the use of a forced distribution causes some participants frustration and can thus be criticised (Gaito, 2009). However, allowing a free sort brings its own limitations. There is less differentiation of items and thereby less reliability as assessed through test retest reliability of the sort (Block, 1961). However, it should be noted that statistical comparisons have shown that a complete rank ordering of items is unnecessary (Brown, 1980), so incomplete sorts or a distribution not following the grid structure can be included. However, several participants did complain about being restricted to the grid structure and bearing in mind Brown's statement above, in the future I would allow for variation from the grid if preferred. I don't feel that the results would be different but it may prove a less taxing experience for some participants.

A further limitation of Q can be seen in the need for the researcher to engage with the not insubstantial debate outlined in Chapter Six and then communicate this with participants. Q as a method is frequently misunderstood. Indeed one participant, who was strategically sought out,

77 Actually there were several occasions when I was asked to print a contract and when I had to then remind them that it had already been done.

refused to take part feeling that such a task could not represent the complexity of his viewpoint. It is interesting to consider how other qualitative methods would have accessed such a viewpoint. I would assume that this person would have been open to an in depth semi-structured interview. However, such a method allows the researcher to impose categories of her own after the interview is finished, away from the participant, whereas in Q the participant categorises the items according to her own criteria. Responses to the method varied from the above mentioned resistance and outright refusal, to those worrying if they had 'done it right' as if they were being tested. This response shows the difficulty of explaining the purpose of Q as an anti-essentialist tool. The latter response was particularly voiced by Chinese participants in China. This is not surprising as qualitative research has been rarely used in the field of Chinese medicine and these participants have had no prior exposure to it. However, there were others who found it fascinating as a reflexive tool; as a self learning process.

As medicine is particularly shaped by hospitals, as these institutions particularly serve to reinforce dominant values and beliefs of a culture (van der Geest & Finkler 2004), the opening up of private clinics in China is likely to accelerate emergence of further diversity of practice. New lineages (*xuepai* 学派) of Chinese medicine practice will arise and this research, as a mapping out of diversity, will be out of date. However, Q studies are done as a snapshot in time and the inevitable changes that follow are not the immediate concern.

7.3 The Double-barrelled Rule and Statement Wording

In seeking to balance negatively voiced and positively voiced statements confusion can arise. Some participants questioned the following statement;

18. In Chinese medicine today I cannot use herbs without combining their pharmacological functions with their energetic effects (-5).

This emphasises the care needed in such details. This confusion was not picked up when the Q sort pack was piloted suggesting that wider piloting would have been beneficial.

In Section Two I argued for the inclusion of double barrelled statements. In considering if they caused misunderstandings it is useful to take the following as an example;

57. 'In clinic I don't rely on knowledge from books but on traditional methods of diagnosis handed down to me by my teacher.'

On reflection, this statement could have been clearer if 'but' read 'as much as.' A few participants did point out that they use both and so found it hard to rank this statement, however, most did not view it as strictly meaning an either or choice. Looking at the placement of this item in each Enactment, it was only Enactment Five that gave it presence (+3), which fits in well with the narrative of this Enactment, particularly as it was quite distinct from the others.

7.4 Personal Reflections

In retrospect this research journey started at a crossroads for me as a practitioner; I was considering studying biochemistry to better understand Chinese herbs. However, in becoming a practitioner researcher I have had the opportunity to step back and look at my own assumptions. It has been an epistemological awakening that has led me on a path able to escape such biomedical hegemony. Part of the journey has involved learning the Chinese

language and thus allowing me to access the Chinese world of Chinese medicine. Rather than increase my knowledge of biomedicine I have followed a path that values the Chinese anatomical body, the Chinese physiological and pathological body. It has enabled me to enact different Chinese medicines from those I knew before.

I am confident that the enactments described here offer new ways of looking at Chinese medicine, through which not only myself but also other practitioners can weave their own tapestry of practices whilst negotiating various paths through the 'snowstorm'[78] of knowledge available.

My next task is to make such a journey accessible to my many Chinese medicine colleagues, some of who contributed to this research, through a non academic rewrite of this thesis.

Given the exploratory nature of this research inevitably it raises more questions than answers. This research journey has been a process of discovering anew Chinese medicine, as if seeing with different eyes. I agree with a taxi driver I met whilst on fieldwork in Beijing who said that, 'Chinese medicine is genuinely wonderful, *zhongyi shi zhenzheng de qimiao* 中医是真正的奇妙.'

7.5 Conclusions

Chinese medicine is commonly presented as an ancient two thousand year old tradition, yet simultaneously, as a changing practice that responds to social and cultural changes. This thesis adds to the literature that seeks, not to interpret the multiplicity of Chinese medical practices in terms of gross

78 A Q methodology researcher likens snowflakes to human situations in that they are multiple and perishable see: DUIJKER, H. C. J. 1979, "Mind and Meaning", Operant Subjectivity, vol. 3, pp. 15-31.

cultural differences – such as, presenting Chinese versus biomedicine medicine or even a ‘Chinese’ Chinese medicine versus a ‘Western’ Chinese medicine, in order to put forward a more complex evaluation of contemporary Chinese medicine practices. The findings have important ramifications for both the education of Chinese medicine and for research design. Furthermore, these multiple perspectives have the potential to enrich individual practitioners, through reflecting on practitioners’ understandings of their daily decision making and the assumptions that these carry. When considering how to integrate Chinese medicine into modern healthcare settings, or when seeking evidence through research to facilitate that process, it is crucial to ask what do we wish to integrate, what exactly are we researching? It is essential that multiplicity is taken as the accepted starting point for Chinese medicine and the local conditions always taken into account, for as Said (1979) states:

> ‘The real issue is whether indeed there can be a true representation of anything, or whether any or all representations, because they are representations, are embedded first in the language and then in the culture, institutions and political ambience of the representor. If the latter alternative is the correct one (as I believe it is) then we must be prepared to accept the fact that a representation is *eo ipso* [by that very act] implicated, intertwined, embedded, interwoven with a great many other things besides the ‘truth’, which is itself a representation’. (pp272-273).

The process of managing boundary objects is important for developing and maintaining coherence across different practices. They can provide a route whereby a practitioner gains access to other ways of knowing. However, this will only occur when an ‘as well as’ mode of thinking is employed. Thereby practitioners can enter the knowledge base of others.

Chinese medicine practitioners seek credibility by distinguishing their practice as ‘classical’, ‘traditional,’ ‘scientific,’ ‘medical’ and so on, dependant on whom they wish to exclude and the audience with whom they wish to communicate. Yet, they are moulded by the many contradictory Chinese medicines they encounter on their route to becoming a practitioner and there is thus a need to find a way whereby they can pool these resources; to be able to draw on the contradictory knowledges that co-exist. Where they end up, their identity as a practitioner will always be multiple.

This research has deconstructed the (dominant) view that more information leads to a more complete picture. Whilst this view dominates the literature on medicine generally, implying that each has a partial view of reality, together filling in the gaps that inevitably arise due to a particular perspective on that reality. It seems to me, that if one accepts the multiplicity of practice, one is only limited to the knowledge of one practice when one adopts an either or perspective on knowledge. However, if there is epistemological plurality the task is to describe that plurality without privileging one practice as ‘true’ and others as therefore ‘false’. In such a scenario one could draw on different bodies of knowledge as being equally true. In such a scenario ‘either or’ knowing can also be one of those multiple realities; it could exist therefore as part of the ‘as well as’ knowing. Thus allowing for Unschuld’s concept of patterned knowledge to indeed explain how practitioners practise. However, unlike in his view, ‘as well as’ and ‘either or’ knowing can mutually exist.

Since practitioners taking part in this study all show some correlation with each of the Enactments, there is the possibility that some will be interacting in a ‘patterned knowledge,’ ‘as well as’ way. Obscuring the knowledge of one enactment with that of another is not therefore, the *inevitable* consequence of using different knowledge bases. One can conjecture that practitioners who are exemplars on a single enactment would find it harder to give up that view and take on knowledge of another enactment, since they hold a greater stake in one way of knowing. Such practitioners may be very experienced,

having found their way in Chinese medicine and as such find it hard to put down what they know in order to know in a new way. For such practitioners Kuriyama's obscuring could possibly occur. On the other hand, maybe through clinical experience such practitioners hold an identity that does not recognise either / or thinking. If the former is true one could conjecture that newer practitioners have the potential to know each enactment anew, without the prejudice of believing that they have found the real Chinese medicine. This research has shown the possibility exists to know different Chinese medicines, future observational studies could be carried out to see how these are enacted in practice.

The data from this study do not support an East–West divide: practitioners from China and various Western countries make up these enactments and there is not a clear Eastern Chinese medicine in contrast to a Western one. The enactments reflect differing epistemological positions but with points of shared understanding. Furthermore, there is a practical way for practitioners of Chinese medicine to access and be part of differing Chinese medicine knowledges through the patient body as boundary object. Whilst obscuring of knowledge can also occur it obscures but does not delete for others.

The question posed to practitioners during this research; how does biomedicine influence your Chinese medicine practice, was chosen on the assumption, outlined in Chapter One, that biomedicine's hegemony is all pervasive. The findings put this assumption in a new light. Often biomedicine's dominance, particularly in the field of critical medical anthropology, is seen as necessarily weakening indigenous medical systems (Estroff, 1988). It is used perjoratively towards the implied superior power. However, the six enactments provide an alternative interpretation. Their interaction with biomedicine can be seen, not so much as an erosion of Chinese medicine, but more of a creative force, generating a multiplicity of Chinese medicines. Therefore is the term hegemony misused? The distinct

Chinese medicines are available to all practitioners through allowing one view to disappear and attaching themselves to another emerging.

Some argue that Chinese medicine as a body of knowledge has survived the replacement of its knowledge with that of modern science due to its ability to change and adapt to changes at the social level (Zhu & Rose 2002). Here what change means needs clarification; change can be seen, on the one hand as an evolutionary continuous improvement, as seen in scientific accounts; or as here as concurrent diverse practices that interact, interconnect and transform across permeable borders. The former assumes that change is teleological, replacing what went before. It asymmetrically judges the present as superior to the past. The enactments presented in this research show the existence of non-teleological changes and constant adaptations to new circumstances.

7.6 Main Findings and Contributions

This research has revealed, first, the presence of and described in detail six distinct inter-subjectively shared practices of Chinese medicine. These differ according to what is considered valid knowledge in each. They have been labeled to reflect their content as: A Modern, Independent and Equal Medicine, A Classical Medicine for Modernity, A Biomedical Resource, A Grand Narrative, A Way of Being, A Dynamic Tradition and A Pragmatic Blend. A brief summary of each is provided in Appendix 7. Second, it is proposed that whilst these practices may contain contradictory truth claims, the mechanism whereby practitioners can make use of knowledge of more than one practice, whilst maintaining integrity to the knowledge of each is via the patient as a boundary object. Third, the implications of these findings offer a radical departure from the commonly used model, the Delphi process, to arrive at ‘best’ formula to be tested in clinical trials of Chinese medicine. Fourth, in the field of Q studies the application of method assemblage to the analysis of the data allows for the ‘neutral zone’ to emerge as a rich source of data allowing for a truly gestalt interpretation.

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Appendices

Appendix 1: Interview with Lü Aiping, Beijing 2006

This interview provides an example of the semi structured interviews carried out in Beijing during fieldwork. This particular interview is chosed as an example since it is often referred to in the thesis. Transcription is verbatim, with underline indicating louder voice and…….indicating a pause.

The following is read to Lu:

The slogan - *ji cheng fa yang* 继承发扬 inheriting and carrying forward summarises the debate between modernity and tradition but does not answer how this is synchronized. I believe that not only is it clinical doctors who are in a position to actively know through their daily practice, but also that each doctor will have a different and valid experience of this process. Chinese medicine continuously is generated through its practice, hence I am asking your opinions.

Tape starts…..

T: *Wo xiang liaojie nin dui yu zhe ge wenti de kan fa ru he* – (what is your thinking on this topic?)

L: Ok Chinese or English?

T: Both or either

L: Laugh,

T: Whichever you prefer……English is good

L: Ohh…..ah….well actually the eh perhaps you can say that this is the only one for the …modernisation..the globalisation of traditional Chinese Medicine anyway the key point is try to find out something good or something better in Traditional Chinese Medicine (TCM) whether use what kind of methodologies you use it doesn't matter actually anyway you have to find something good in the TCM …….and find something useful for the nowadays so…social development of the medical sciences development that is that is the most imp we don't care about the *ji cheng fa yang* or its for a policy it s not real scientific term

T: Yes?

L: That's my point anyway

T: You talk about medical science do you think that TCM follows medical science

L: No …….there are two different systems anyway…..definitely there is something good in the TCM, and of course something not so good anyway, so we have to find something good

T: Good in biomedical terms?

L: We don't care about biomedical terms or scientific term anyway something useful for the social development that's the key point

T: Bearing in mind this question (pointing to sheet – that says: Biomedicine is the dominant medical model in the world today, how does this dominance influence Chinese medicine?)

L: ha hum

T: Biomedicine is more mainstream

L: Mainstream that's right

T: Than Chinese medicine throughout the world and in china,

L: Hm hm

T: How does this strength, this power, influence Chinese medicine, the small player?

L: OK, the biomedicine create a kind of unified criteria for the diagnosis, for therapy, actually for everything, for your health anyway, so everything is big influence for TCM things in TCM, for as you know there are a lot of questions still in understanding germ defences, so of course they have huge influences on that, on that area.

T: Em…and do you have any clinical practice now?

L: Yes…….no, not now several years ago.

T: Can you think back to your clinical practice?

L: Hmhmm.

T: Think how biomedicine influenced your Chinese medicine.

L: OK, I can say that, in the err…..,in the generally in China, you know, 80% of the doctors use the two approaches, in the kind of integrative, that depend on the what kind of situations that they are you know in, in some cases they use only TCM and some cases only Western medical sciences or some, some cases both of them, that depends on the, you know, kind of experiences you know actually

T: So when to use which depends on….

L: It depends on the personal experience. I think anyway for chronic diseases have to use both ……special for like diabetes or hypertension or anything like that,….lifelong diseases you have to take drugs for… for life….this kind of … they try to use, you know, medical drugs as less as possible.

T: Can you think of an.. an actual example?

L: For….?

T: To explain at which point and for which aspects you use biomedicine or Chinese medicine.

L: OK…….lets say for diabetes, if you have a high, get a high level of blood sugar, they have to use you know medical, … Western medicine at the beginning I think.

T: When a patient comes in?

L: That's right, with such a high level of blood sugar.

T: He has found symptoms?

L: No, he hasn't…obviously have symptoms and signs if they have the high level of blood sugar.

T: Ok..think back to the actual clinical situation a patient walks maybe he is tired has a lot of urine you think, ah, maybe he has diabetes.

L: Ok, you have to take diagnosis first.

T: So the first check is the Western diagnosis?

L: Yes, I think so,

T: Or Chinese?

L: In my mind, in my case, definitely, otherwise I don't know if this patient's a tumour or cancer or whatever or a common cold or lung cancer there is no difference because similar….

T: So Western medicine tells you actually what is going on?

L: That's right, that's right because TCM cannot tell what's the difference between hepatitis and liver cancer for the symptoms are same.

T: Right.

L: You cannot say, I can cure, hahaha, liver cancer, hahaha definitely not

T: So always the first step is Western diagnosis for you

L: Yes at least in my case, I have I have I have to know, what's going on in the whole body haha, what kinds of organs are suffering.

T: Ok so…….er.. he has the test and blood sugar is high what is the next step?

L: The next step is depends on symptoms and signs, if you know high blood sugar I have to know, you know Western medical drug to reduce the sugar first of course, at the same time maybe I get some TCM for you know…..for relieve the symptoms.

T: So your ….if it is more serious you use Western medicine?

L: That's right..you know can think of tactic….you know high sugar, high lipid or whatever.

T: So, for a single symptom…..

L: For a single diagnostic index not a symptom.

T: Right.

L: It just change, pathology change.

T: Then, as the follow up, the, is blood sugar down?

L: Then we try to you know use TCM to improve the sugar level, in the normal scope that's TCM advantage actually I don't know to be sure.

T: So this…. you have partly answered this question what role does biomedicine have in clinic first you say it is for diagnosis.

L: Ah ha.

T: To rule out more serious condition?

L: That's right, that's true.

T: Then to measure progress, by the indexes?

L: Yes sure for the efficacy evaluation, we have to use, you know, the biomedical criteria……I think in most cases, most cases I don't say all of them, like you know things like cancer is like depend on size of cancer, it doesn't mean nothing, actually you have to you know measure quality of life something like that, for that this is actually from biomedical sciences not not, not you know, eh… not, not real TCM.

T: What is…what is?

L: Quality of life, usually you know in TCM they say we are focusing on quality of life in TCM, but actually, quality of life is a criteria from biomedical sciences, hahahahaha, I think so.

T: OK, but that brings up the interesting question of these two medicines are sometimes called distinct systems.

L: That's right.

T: But actually in practice they overlap enormously.

L: Ahhum.

T: So do you see there is a clear divide between the two?

L: Ah no actually.

T: Today…..

L: Ah no, in clinical practice, it is very hard to, to clarify both, but in one case it is possible like you know, like you know, we have someone like ….like 80 years old or something old TCM doctor, they open a clinic, they don't know anything about …….biomedicine anyway

T: Ahha.

L: They don't anything about that, but actually the patient to see that Dr the patient know everything about his disease, his diagnosis, otherwise I don't think that the patient can choose the TCM directly without any diagnosis.

T: So you think the patients themselves……..

L: They have to be developed, first themselves, ok know no severe kind of you know injury…no severe diseases…in such a case I can go to see a Dr, the pure TCM Dr, because I know that biomedicine know no way ….to keep on, you know some for my case.

T: So where did this information come from, for the general public, how did they get this knowledge of…

L: OK.

T: What is biomedicine good for what is Chinese medicine good for..do they teach it in schools?

L: No, it's a kind of, you know its kind of public idea I think like for the chronic disease we try…….after the disease is controlled we try to use TCM as much as possible, it looks like that, for chronic disease, for like the …

T: And why is that, why don't they keep using Western medicine?

L: Because this kind of..in, in in the mind of Chinese, they have you know like side effects from chemical, you know chemical drugs, that's the kind of you know background , cultural background.

T: Chinese medicine doesn't have side effects?

L: Its natural because they are natural, they are supposed to have no side effects, actually, they they do have, hahaha, I know that, haha.

T: So kind of eh belief in society?

L: That's right that's right.

T: But where do you think this came from?

L: ……..ehh….ahhhhh I don't know its kind of history, I don't know that thing exactly…anyway, everyone if in the countryside, people know that you know.

T: Yes?

L: OK.

T: Often repeated?

L: That's right that's right.

T: Em, so how do you see the relationship now, between Chinese and Western..as you just said, maybe there isn't a distinction.

L: No, eh there is, I think they have to you know have cooperation between them, like a board in a complementary, something like that and then we'll be integrated, I think anyway.

T: We'll?

L: Will be.

T: Oh will.

L: Yes that's right.

T: And…..between the Chinese and Western Drs are the relationships..

L: Hahaha.

T: ..Helpful?

L: It depends, on the depends, on who it depends on Drs, its hard to say that but part of Western medical Drs they, they even look down on TCM therapy anyway, but of course they have part of TCM Drs who look down on Western medicine anyway so that's complicated it,hahahaha depends on….

T: Depends on individuals?

L: That's right.

T: Ok..now it has been said before that *bian zheng…*

L: OK.

T: *Bian zheng* is the mechanism for integrating in clinic, do you think this is so?

L: No I don't think so. Actually *bian zheng* is a kind of classification of the situation of health…disease has also this kind of classification so they do some kind of overlap you know so its anyone can classify into different groups, haha so anyway, Chinese use *bianzheng* and Western medicine use diseases so that's you know simply overlap…there should be.

T: So, do you think that it is a way for them to work together?

L: That's right that's right definitely, like we have diabetes, we can, it can be further classified in a Chinese group…

T: And is integration really about Chinese medicine using more and more of Western medicine's knowledge……is it like a one way street?

L: Ehh…….It's hard to answer that question anyway, it's a haha.

T: It's just your individual opinion I am interested in.

L: I know.

T: I think every Dr …

L: For me, you know 80% sure, we need more and more you know biomedical sciences to support TCM research or, ……..or to encourage TCM research actually,……to follow the mainstream of the scientific, you know kind of you know, special way.

T: OK, and em, part of that..the opposite?

L: Definitely.

T: What does Western medicine learn from TCM?

L: Definitely, there are a lot of things we have to learn from TCM.

T: Such as?

L: Such as symptoms. like you know, in TCM they only focus on those symptoms from the disease or pathology, like you know, em… gastric pain from gastritis or joint pain from arthritis but they don't care about you know dizziness from headache

T: Right.

L: Because they are not so closely related to the gastritis or arthritis, but TCM they focus on all the symptoms.

T: And is there any research…..

L: Sure.

T: Or projects that look at that in Western medicine?

L: Yes, actually you know I reported to, you know two papers in how the symptoms works for the disease, or for, for the, the diagnosis or even for the efficacy evaluation for the, even drug treatment.

T:Ah ha, is that in Englsih or Chinese?

L: That's right that's in English.

T: Oh good can I read them?

L: Sure, I can yeah, give you later.

T: That would be very interesting.

L: Emhum.

T: And this is a theoretical example.

L: OK.

T: So, imagine you are in clinic, I know that now you are actually…

L: Em hum.

T: So you have two patients come in…

L: Emhum.

T: They actually not sick, they just want to tonify the…before the winter comes.

L: OK.

T: And it just so happens they have exactly the same Chinese medicine pattern, no big imbalance, their *bianbing bianzheng* is the same, OK?

L: I can ehh follow you.

T: Although. they don't have a big serious illness from a Chinese medicine perspective.

L: OK, well its hard to say that.

T: This is your……imagine you are in clinic.

L: OK I know.

T: This is what you have decided.

L: OK.

T: And you've done pulse, tongue the questions…….

L: OK ehhum.

T: You think this person is quite healthy, and needs herbs.

L: So, no severe illness in a TCM opinion?

T: Yep.

L: OK OK.

T: The next person comes in exactly the same.

L: The same person you mean?

T: Yes, no no, different person, looks……..

L: OK.

T: Looks ….everything the same, or very, very similar.

L: OK.

T: You are just writing the prescription.

L: OK.

T: Then, they tell you, actually I have HIV.

L: ehhum.

T: I'm not sick, but I have this virus.

L: ehhum.

T: How does this information, then change what you would have given that person?

L: That depends on the theories of the Dr.

T: Ehhum.

L: Like even pure TCM Drs they don't change the prescription anyway.

T: Ah!

L: For the Dr that knows something about biomedical sciences, hahaha they will definitely will be changed. They will change the prescription even give more suggestions, give like more kind of hospitals or drugs, that depends on the Drs, OK.

T: You mean you would refer them onto other…. Specialists?

L: That's right, that's right, because not anyway if HIV positive that is a potential severe disease it's that anyway.

T: OK, and what do you mean by pure TCM Drs?

L: Pure TCM, the idea is they don't know anything about biomedical sciences.

T: Do they exist today?

L: Some old people, definitely some.

T: And, are they transmitting their knowledge still?

L: The TCM knowledge, Sure.

T: Like before 1949 when there were no schools?

L: There have been a lot of you know, you know, some kinds of student you know they just kind of follow him.

T: Ah they do ah.

L: To clinical practice, they can practise for many, many years and a lot of experience, actually they're good, good for the….those in a chronic disease.

T: And do you think they 're…..

L: Actually you know I will tell you the truth, the chronic disease has two situation two situation at least, one situation is that some patient is suffering most sever disease like cancer disease and everyone know that they cannot be cured such cases they don't have to see the Dr, cause useless, but some of them like diabetes, they know that, they know I have to get something from TCM to you know to improve you know my quality of life quality of life like that the pure TCM Dr are more useful to them in such a case.

T: Right.

L: In such a case biomedical science is no useful for that Dr of TCM

T: And er that's good, final question can I please invite you back, when I come back next year the next stage of my research, to take part in a sorting of statements, so from what you have told me I will pick out some which I think are important and other people will have different opinions then you will rank them according to your own opinion.

L: I can do that. Send me an email.

T: Thanks very much, it's been really great to have your opinions.

L: OK hahaha.

Appendix 2: List of Questions Used in Interviews as Part of Gathering the Concourse

Below is the opening introduction that I used at the start of concourse generation. In China the questions 2-11 were used in semi-structured interviews. It should be noted that concourse generation involves all communication on a topic, so includes many other sources than those below.

我对于如何将中西医结合的论辩有兴趣我的博士研究主要是从医师的诊断来探讨这个问题。其重点在于当中医采用望闻问切,四種方法,来诊断无症状疾病时,西方医学的诊断方式如何对中医产生影响。有些人认为将中西医结合能够产生一种新的医学，另外有些人则认为中西医结合会损失中医原有的精神。这个议题，不仅在二十世纪，有着激烈的论辩甚至延续到现在 。很多知名的中医师对于相关的论辩有卓越的贡献。我重视您们在应用中西医整合的临床经验，特别是西医检验对于您在诊断时的影响。

I am interested in the debate surrounding the encounter of Chinese and biomedicine. My PhD is focusing on practitioners' opinions on this topic particularly from the point of view of diagnosis. As Chinese medicine uses the four diagnostic methods, looking, listening/smelling, asking and palpitation, what influence does biomedicine have when there are no signs and symptoms using these methods?

Some people believe integration will produce a new type of medicine, others believe integration will damage Chinese medicine's vitality. I am particularly interested in your individual clinical experiences, how for example do biomedical test results affect your diagnosis?

The following questions may help focus your response.

1. 我想了解您对于这个问题的看法如何？What is your thinking on this topic?

2. 您如何看待中医与西医 [-生物医学-] 之间的关系呢？How do you see the relationship between Chinese medicine and biomedicine?

3. 同时，您如何看待中医师与西医师之间的关系？And the relationship between Chinese and Western doctors?

4. 当前在世界上西方医学[生物医学]仍占有主导的地位，这种情形如何对中医造成影响？Biomedicine is the dominant medical model in the world today, how does this dominance influence Chinese medicine? [生物医学如何对中医造成影响？] In short how does biomedicine influence Chinese medicine?

5. 像这样西医[-生物医学-]主宰医学的情形，对于您本身的临床实务有没有特别的影响？And particularly how does the dominance of biomedicine influence your clinical practice?

6. 请您举个例子好吗？Can you give an example please?

7. 您觉得西方医学-[生物医学-]当前在中医中所扮演的角色如何？What role does biomedicine have in a Chinese medicine clinic today?

8. 「辨证」常被用来作为描述整合中西医两种体系的一种机制，您认为是如此吗？这是唯一的方法吗？*Bian zheng* is often described as the mechanism for integrating the 2 systems of medicine, do you think this is so and is it the only way?

9. 整合西医需要使用越来越多的西医知识吗？Is integration about Chinese medicine using more and more of Western medicine's knowledge?

10. 西医[- 生物医学-] 可以从中医中学到什么？What does Western medicine learn from Chinese medicine?

11. 如果　您从中医诊断出两个病人具有相同的病症与症状，但是其中一位由西医 [- 生物医学-] 诊断出感染爱滋病。您如何将这些信息「融入或结合」进行您的诊疗当中？If you see two patients who have the same pattern and symptoms in Chinese medicine, but one has a Western diagnosis of HIV. How do you incorporate that information into your treatment?

Appendix 3: Excerpts from a Semi-Structured Interview Carried out in China, Transcribed and Translated

Interview excerpt with Chang Nuan 常暖, Bejing 2006

The research topic is read out and a card with the topic printed is handed to the participant.

现在是问我哪一个？第一个？就是这个，呃，对什么的看法？很泛的，泛泛的一个看法？不是，她把这个收了。我看看。。。。

T: 第一个问题 The first question…..doctor reads from a card (see Appendix 2 for questions)

C: 中西结合啊，中西结合。。。。。。 Chinese Western integration ah, Chinese Western integration. (Reading the question).

C: 我感觉这问题，中西结合，就是说产生一种新的医学的可能性，从目前来看，好像不是，不是很大，但是中西医呢，确实是各有长处，在临床互补，我觉得这一点是比较突出的。比如说现在，我觉得临床，比如说应用最多是西医的诊断加上中医的治疗。I think that the question of Chinese and Western medicine integration, from what I can see at present, there is not a large possibility of creating a new medicine, but I think that certainly each medicine has its own good points and in clinic they prominently complement each other. For example, I feel that currently in clinic we mostly use a Western medicine diagnosis in addition to using Chinese medicine to treat.

C: 就是西医的辨病和中医的辨证相结合。This is just mutually combining the Western medicine differentiation of disease and the Chinese medicine pattern differentiation.

C: 这个是现在，恐怕就是中国的好多临床医生使用最普遍的一种方法，不光，不光是中医，还包括西医。So at present, there is a fear that many of China's clinical doctors generally use one method not only Chinese medicine, but also Western medicine.

C: 现在好多中医就是，在临床的时候，几乎，目前，就是从现代的中医来讲，几乎没有一个中医就是完全不了解西医的诊断，（然而）纯粹靠中医的望闻问切去看病，现在已经很少，大部分嘞都是在西医诊断的基础上，再结合中医的望闻问切，于是在（中）西医诊断把这个病诊断清楚的这个基础上，按照中医的望闻问切再去辨证，再去治疗，这是目前最多的一种方法。Presently, many Chinese medicine doctors, when in clinic, the most common way for Chinese medicine nowadays is almost no one is completely unaware of the Western medicine diagnosis, but now there are very few relying only on Chinese medicine's four diagnosis methods, almost all diagnose on the basis of Western medicine combined with Chinese medicine's four methods. Hence, a Western medicine diagnosis is the clear foundation, and Chinese pattern differentiation is made with the four methods and for treatment, this is the most common method currently.

Appendix 4: Statements of Q Sort

Q Sort statements used in Q pack and formatted into a booklet with space after each for post Q sorting comments.

1. **I translate Western medical information into Chinese medicine principles (e.g. a low BBT would be linked with *yang xu)*** 我将西医资讯翻译为中医準则(例如低 **BBT** 就是阳虚)

2. **If a patient is taking Western medical drugs for a condition I wouldn't also treat it with Chinese medicine (e.g. if the patient takes thyroxin for hypothyroidism she wouldn't also need herbs)** 前提是如果病人服用西药,我就不会施以中药治疗 **(**例如病人服用甲状腺素治疗甲状腺机能不足,她将不需要同时服用中药**)**

3. **The Western medical diagnosis of rosacea leads me directly to choose specific herbs known to treat this condition** 当西医诊断出病人罹患红斑性痤瘡后，我会直接采用对这个病症已知有效的特定中药来治疗

4. **My starting point is always what is the Western medical diagnosis** 我的出发点皆是根据西医诊断结果

5. **Like Chinese herbs, Western drugs have energetic actions (taste, meridians, nature, flavour), and these cannot be understood just by their biochemistry** 像中藥草一樣，西藥有能量的活動（口感、经络、本質、味道）而西藥的這些特定性質必須被瞭解，而非只僅瞭解西藥的生化特性

6. **Western medical information does not influence my actual prognosis** 西医知识对实际的预测没有影响

7. **Using a Western diagnosis would decrease my credibility as a Chinese medicine practitioner**
使用西医的诊断结果会减少我作为一个中医师的可信度

8. **Western medical information provides a safety net for Chinese medicine practitioners not advanced in its methods** 西医的信息提供中医师在进行诊断时一个安全保证，而西医的方法并不先进

9. **First understand the patient's *qi*, in clinic a cure cannot be achieved without working with the patient's *qi*** 首先要了解病人的气,在临床上，不重视病人的气不可能使病人痊愈

10. **Starting from the Western medicine diagnosis I know what are the possible Chinese medicine patterns** 若是以西医诊断为起点，针对该病症我知道那些是可行的中医药方

11. **I choose herbs according to their pharmacological actions and the Western medical understanding of the condition e.g. anti-inflammatory herbs for inflammation** 我选择药材的方法是根据中药材的药学特性以及西医对药材使用的了解（例如使用抗发炎药材来治疗发炎）

12. **Relying on the concept of channels to treat does not give as good results as using the Western medical anatomical understanding of the body** 用中医的经脉概念治疗疾患的效果不及西医对人体的原子论看法来治疗疾患效果好

13. **Without using Western medical explanations I cannot communicate clearly with my patients** 不采用西医的方式来解释我就不能与病患能更清楚地沟通

14. **In clinical practice I use whatever works, no matter from where it originates** 在临床上，我会使用任何可行、有效的治疗方法，不论属于中医或西医

15. **Using stethoscopes, blood tests etc. is a natural progression into the 21st century and so are characteristic of modern Chinese medicine today** 使用听诊器、血液测试等方法，是中医进入 21 世纪的自然进化，而且也是中医现代化的特征之一

16. **My practice of Chinese medicine is based on what Western medicine doesn't treat well** 我的中医治疗是针对那些西医无法有效治疗的疾病上

17. **Not blood testing patients on herbs is unsafe practice** 对使用中药的病患无验血是不安全的方式

18. **In Chinese medicine today I cannot use herbs without combining their pharmacological functions with their energetic effects** 现代中医如果不结合药材的药学功能能量效果,我便无法使用

19. **Using Western medical techniques in my practice gives me a higher status than 'pure' Chinese medicine practitioners** 在我行医过程中使用西医技术让我觉得比「纯粹」采用中医方法的中医师更高级一些

20. **Clinical decisions cannot be based on anything but knowledge from the classics** 中医临床的诊疗必须以依据中医的典籍而不是其他方面

21. **I just discard Western medical information** 我会忽略西医的资讯

22. **The more Western medicine I know the more I use it in my Chinese medicine practice** 我知道越多的西医知识，我越会将这些西医知识运用在我的中医临床实践上

23. **How I use Western medical information depends on my role in a patients healthcare** 我如何使用西医资讯是取决于我在病患的健康照护上扮演的角色

24. **In practice I stick to Chinese medicine principles, using herbs according to their pharmacological makeup is simply not Chinese medicine** 中医实践必须恪守中医原则，根据药材的药学特性来使用药材并不可以当做中医

25. **A Western medical diagnosis will not influence my treatment it is only the patient's observable changes that matter**
西医的诊断不会影响我的治疗方式，我会根据病患可观察的改变来调整我的治疗方式

26. **Thinking according to indexes and biochemistry does not fit in with Chinese medicine's theoretical system** 根据西医的文献与生化学的角度来思考是不符合中医的理论体系

27. **Knowing the Western medical diagnosis alters what is seen in the tongue and felt at the pulse** 知道西方医学诊断会改变舌诊与诊脉的结果

28. **Because some diseases have no symptoms, if you don't use Western medical knowledge your Chinese medical diagnosis won't be complete** 由于一些疾病没有症状，因此你若不使用西医的知识，中医诊断无法完成

29. **In clinic I don't need *bian bing* (differentiation by disease) as Western medcine's diseases are a modern version of *bian bing*** 在临床上不需要辨病因为西医病是现代的辨病

30. **I don't rely on Chinese medical knowledge as much as Western medicine's** 我不仰赖中医学的知识胜过于西医学

31. **The longer I am in practice the more I see the limitations of Western medicine so am pulled back into Chinese medicine's knowledge base not Western medicine's** 我行医越久，我发现越多西医学的限制，因此我会倾向回头采用中医的知识为基础而非西医学

32. **Western medical information is the facts, Chinese medicine is another way of looking at them** 西医学的信息是事实，中医则是提供另一种看待这些事实的方式

33. **According to Western medicine hepatitis is a disease of the liver, so I look for Chinese medicine symptoms associated with the**

liver 根据西医学，肝炎是一种肝脏的疾病，因此我会寻找与肝脏相关的病征

34. **In some contexts of practice there are protocols about using Western medicine information, such as recording the blood pressure at each visit, so in different settings my practice varies** 某些行医时的情况，有一些关于使用西医资讯的协定，例如每次看病人要量血压做纪录，因此在不同的情况下，我行医的方式会随之变化

35. **Western medical tests e.g. X-rays act as assistants in the diagnostic process** 我会采用西医医学检验（例如 **X** 光片）作为诊断过程的辅助

36. **In clinic I cannot describe an X-ray as yin or yang** 在临床上，我无法描述 **X** 光是阴或阳

37. **The four methods of Chinese medicine diagnosis these days involve looking at test results, X-rays and asking about the Western medicine diagnosis** 中医诊断的四个方法，在现代可以包含参考检验结果、看 **X** 光片与询问西医的诊断

38. **A Chinese medicine diagnosis is not as exact and clear as a Western medicine diagnosis** 中医的诊断没有西医的诊断更精准与清晰

39. **I cannot assess the patient's progress without using Western medical indexes** 不使用西医的评量项目我便无法评估病人的康复情况

40. **Western medicine understands the workings of the body Chinese medicine can only know a part** 西方医学了解整个身体的运作，而中医仅能知道部分

41. **Western medicine information has no place in the practice of Chinese medicine, they are so far apart that they can't describe the same thing** 西医的资讯在中医的实践上没有用，西医与中医两者相距甚远，以致于无法用来描述同一件事情

42. **Western medical tests themselves, such as X-rays can cause disease and have no place in my practice** 某些西医检验方式（例如 **X** 光）本身就会造成疾病，因此我不会在我行医时采用

43. **Only rapidly progressing potentially fatal diseases need a Western medicine diagnosis** 只有发病快速且具有致命危险的疾病需要西医诊断

44. **Chinese medicine is all about *qi*, it is more useful to understand *qi* than to know anything of Western medicine** 中医最重要的就是气，所以了解气比了解西医学更有用

45. **I don't treat some diseases e.g. AIDS as Chinese medicine doesn't yet know the right formula to treat it with** 我不治某些特定疾病（例如艾滋病）因为中医目前仍不知道治疗这种病症的正确处方

46. **Using Western medical information in Chinese medical practice is like shopping for apples and coming back with pears** 在中医行医时使用西医的资讯是种挂羊头卖狗肉的行为

47. **I cannot practice Chinese medicine without relying on classical knowledge** 我不可能当中医师，如果我不必须仰赖传统知识

48. **There is a clear distinction between Chinese and Western medicine in orthopaedic practice, Western medicine treats only the muscles and bones whilst Chinese medicine relies on channels and *qi*** 在整形外科领域内，中西医并有太大区别，西医只治疗肌肉和骨而中医靠经络和气

49. **Chinese medicine moves with the times, e.g. herbal formulae can now be given intravenously for quick effect, but it is still Chinese medicine** 中医是与时并进的，例如药材处方现在可以用静脉注射以取得更快的效果，但这还是中医

50. **Currently the goals of Chinese medicine are to improve the clinical effect of Western medicine and reduce the side effects** 当前中医的目标是在提高西医的临床效果并减少副作用

51. **Chinese medicine treats the patient as they present even when Western medicine cannot find what is wrong** 中医治疗病患是以患者现在的状况进行诊断，即使西医并未发现患者身患何种疾病

52. **The two systems of medicines can make reference to each other from their unique way of thinking about a particular problem the different angles reveal different things for us in clinic** 中医与西医这两个医学体系，在它们以不同角度看待同一个问题并提出临床上不同建议上，这两者可以相辅相成

53. **It is a mistake to get lost in the details of Western medicine's knowledge as you obscure the broader picture that is Chinese medicine** 中医的内涵与范畴比西医广泛，因此当对中医内涵尚未厘清之前，不该迷失在西医学的枝微末节中

54. **Pneumonia is now treated with antibiotics not by opening the bowels** 治疗肺炎现在用抗生素，无用通大便

55. **Chinese medicine cannot tell if a patient has cancer through its diagnostic methods so of course Western medicine's technology is used for diagnosis** 透过中医的诊断无法判定一位病患是否罹患癌症，因此我们当然要采用西医的技术来诊断

56. **In clinic if I want to make a Chinese medical diagnosis clearly, the precondition is discarding the Western medical diagnosis** 在临床上，如果我要做出清楚地中医诊断，先决条件是我要扔掉西医的诊断

57. **In clinic I don't rely on knowledge from books but on traditional methods of diagnosis handed down to me by my teacher** 在临床上，我不仰赖书的知识，只仰赖老师所教给我的传统诊断方法

58. **Cure cannot be achieved with science alone, compassion, kindness and morality are parts becoming overlooked but which I value in my clinical practice** 治疗并不能够完全靠科学达成，怜悯、仁心与品德都是那些被忽略的部分，但是我在我的临床实践中会重视这些项目

59. **The more I use Western medicine's technologies in diagnosis (reading X-rays, blood test results etc.), the less I need to rely on knowing the patient by other methods such as touch** 当我用越多西医学技术在诊断上（读 **X** 光片、验血等），我就越不需要以其它方法（例如触诊）来了解病患

60. **I use ECG so palpation today in Chinese medicine practice is a mere symbol of being a Chinese medicine practitioner** 我用 **ECG** 所以现代在中医实践上触诊仅仅只是作为一个中医师的象征

Appendix 5: Correlation Matrix of Q Sorts

Correlation Matrix Between Sorts

SORTS	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
1	100	15	17	32	36	1	12	13	6	20	9	-37	-10	-24	-7	26	25	43	47	26	54	60	16	34	41	37	0	19	24	26
2	15	100	37	60	53	43	56	48	39	28	51	33	38	39	24	53	67	49	22	9	8	28	60	24	20	33	32	22	39	51
3	17	37	100	41	28	25	47	45	36	16	32	18	12	30	16	38	41	23	30	8	9	13	32	12	36	30	29	31	28	50
4	32	60	41	100	40	36	50	44	38	29	35	12	35	29	27	37	48	50	19	25	18	28	54	24	36	35	18	17	29	52
5	36	53	28	40	100	28	52	34	33	40	36	15	26	22	16	50	38	55	36	17	29	33	34	43	35	46	13	30	29	32
6	1	43	25	36	28	100	46	50	40	20	44	25	31	47	42	32	53	50	-2	-3	-7	-2	35	6	-8	11	32	24	21	30
7	12	56	47	50	52	46	100	62	45	32	43	25	37	49	37	38	52	50	28	4	11	10	56	19	41	39	35	50	20	51
8	13	48	45	44	34	50	62	100	60	22	47	20	37	41	44	46	56	49	15	4	-11	9	67	17	27	21	35	52	40	59
9	6	39	36	38	33	40	45	60	100	10	39	52	50	55	31	28	40	36	16	9	-3	20	48	17	9	33	42	39	31	49
10	20	28	16	29	40	20	32	22	10	100	12	-9	4	0	10	0	21	31	19	2	6	15	19	25	21	-4	-9	16	-14	16
11	9	51	32	35	36	44	43	47	39	12	100	39	41	14	27	37	59	44	4	6	1	11	53	2	15	24	32	16	33	36
12	-37	33	18	12	15	25	25	20	52	-9	39	100	43	49	17	21	23	12	-7	-3	-25	-10	27	-1	-6	21	26	9	26	28
13	-10	38	12	35	26	31	37	37	50	4	41	43	100	37	33	20	39	25	0	30	0	0	38	16	9	33	22	28	25	32
14	-24	39	30	29	22	47	49	41	55	0	14	49	37	100	39	27	38	21	1	1	-15	-17	34	4	3	20	32	22	25	26
15	-7	24	16	27	16	42	37	44	31	10	27	17	33	39	100	19	41	24	-7	-3	-13	-6	33	23	-6	3	15	19	18	17
16	26	53	38	37	50	32	38	46	28	0	37	21	20	27	19	100	52	39	18	6	9	13	53	28	28	41	14	37	34	47
17	25	67	41	48	38	53	52	56	40	21	59	23	39	38	41	52	100	59	29	15	12	25	55	23	30	41	41	20	36	50
18	43	49	23	50	55	50	50	49	36	31	44	12	25	21	24	39	59	100	50	2	32	30	47	30	36	56	38	39	46	43
19	47	22	30	19	36	-2	28	15	16	19	4	-7	0	1	-7	18	29	50	100	14	39	38	9	29	37	39	20	25	35	28
20	26	9	8	25	17	-3	4	4	9	2	6	-3	30	1	-3	6	15	2	14	100	34	43	4	33	32	33	-5	-14	20	23
21	54	8	9	18	29	-7	11	-11	-3	6	1	-25	0	-15	-13	9	12	32	39	34	100	52	8	31	39	40	22	-1	21	26
22	60	28	13	28	33	-2	10	9	20	15	11	-10	0	-17	-6	13	25	30	38	43	52	100	15	40	45	47	7	7	29	40
23	16	60	32	54	34	35	56	67	48	19	53	27	38	34	33	53	55	47	9	4	8	15	100	28	32	31	34	38	38	63
24	34	24	12	24	43	6	19	17	17	25	2	-1	16	4	23	28	23	30	29	33	31	40	28	100	37	33	-12	24	27	37
25	41	20	36	36	35	-8	41	27	9	21	15	-6	9	3	-6	28	30	36	37	32	39	45	32	37	100	46	14	34	33	38
26	37	33	30	35	46	11	39	21	33	-4	24	21	33	20	3	41	41	56	39	33	40	47	31	33	46	100	27	25	31	44
27	0	32	29	18	13	32	35	35	42	-9	32	26	22	32	15	14	41	38	20	-5	22	7	34	-12	14	27	100	10	44	28
28	19	22	31	17	30	24	50	52	39	16	16	9	28	22	19	37	20	39	25	-14	-1	7	38	24	34	25	10	100	20	38
29	24	39	28	29	29	21	20	40	31	-14	33	26	25	25	18	34	36	46	35	20	21	29	38	27	33	31	44	20	100	47
30	26	51	50	52	32	30	51	59	49	16	36	28	32	26	17	47	50	43	28	23	26	40	63	37	38	44	28	38	47	100
31	49	43	36	47	43	17	46	28	12	37	21	1	14	15	0	39	26	43	41	31	34	38	41	44	52	43	1	29	26	48
32	70	11	44	29	37	0	34	34	9	23	3	-22	-3	-3	6	32	28	42	45	16	37	38	26	33	63	44	13	39	28	42

33	56	35	31	41	46	19	44	39	37	10	17	12	16	18	5	46	35	52	50	13	52	45	37	30	44	54	29	44	41	47
34	12	50	30	28	33	35	35	50	35	23	36	20	32	24	27	44	61	39	22	7	13	34	47	13	14	28	30	22	39	57
35	44	49	24	37	47	19	41	33	29	14	22	13	18	26	-3	43	37	52	47	22	43	47	43	36	49	51	24	43	54	51
36	5	40	28	36	15	31	29	31	42	-16	15	31	30	52	16	34	37	25	6	18	0	16	33	16	22	35	34	15	50	44
37	9	28	23	26	20	36	35	35	49	1	27	32	40	29	23	16	24	5	-14	22	-1	22	24	22	19	20	9	26	11	34
38	39	37	36	41	29	37	35	59	45	11	35	6	23	19	29	39	56	49	13	11	18	34	43	17	28	30	37	24	26	45
39	12	34	31	25	31	21	47	38	38	-2	33	30	28	44	21	27	26	32	4	9	25	21	39	11	25	36	36	32	46	34
40	4	45	26	23	16	31	40	54	37	9	15	32	19	43	21	25	36	32	27	-7	-6	6	45	13	32	5	35	39	52	45
41	51	36	53	31	43	35	37	44	39	15	26	14	10	27	5	41	44	47	43	9	18	34	33	8	27	37	29	29	46	37
42	-9	22	26	41	12	33	26	25	23	16	6	30	26	35	28	18	17	30	15	5	12	-3	25	12	12	10	28	16	26	37
43	48	33	28	31	32	10	32	35	18	12	-5	2	-9	16	4	32	29	37	40	8	19	37	12	25	38	29	14	25	38	43
44	44	28	35	35	37	9	37	35	20	33	8	2	3	4	4	24	20	48	49	13	24	31	36	30	50	35	6	38	40	44
45	42	25	38	35	34	25	42	37	24	22	19	6	13	23	6	36	33	44	21	3	18	16	31	24	48	31	12	43	20	44

Correlation Matrix Between Sorts

SORTS	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45
1	49	70	56	12	44	5	9	39	12	4	51	-9	48	44	42
2	43	11	35	50	49	40	28	37	34	45	36	22	33	28	25
3	36	44	31	30	24	28	23	36	31	26	53	26	28	35	38
4	47	29	41	28	37	36	26	41	25	23	31	41	31	35	35
5	43	37	46	33	47	15	20	29	31	16	43	12	32	37	34
6	17	0	19	35	19	31	36	37	21	31	35	33	10	9	25
7	46	34	44	35	41	29	35	35	47	40	37	26	32	37	42
8	28	34	39	50	33	31	35	59	38	54	44	25	35	35	37
9	12	9	37	35	29	42	49	45	38	37	39	23	18	20	24
10	37	23	10	23	14	-16	1	11	-2	9	15	16	12	33	22
11	21	3	17	36	22	15	27	35	33	15	26	6	-5	8	19
12	1	-22	12	20	13	31	32	6	30	32	14	30	2	2	6
13	14	-3	16	32	18	30	40	23	28	19	10	26	-9	3	13
14	15	-3	18	24	26	52	29	19	44	43	27	35	16	4	23
15	0	6	5	27	-3	16	23	29	21	21	5	28	4	4	6
16	39	32	46	44	43	34	16	39	27	25	41	18	32	24	36
17	26	28	35	61	37	37	24	56	26	36	44	17	29	20	33
18	43	42	52	39	52	25	5	49	32	32	47	30	37	48	44
19	41	45	50	22	47	6	-14	13	4	27	43	15	40	49	21
20	31	16	13	7	22	18	22	11	9	-7	9	5	8	13	3
21	34	37	52	13	43	0	-1	18	25	-6	18	12	19	24	18
22	38	38	45	34	47	16	22	34	21	6	34	-3	37	31	16
23	41	26	37	47	43	33	24	43	39	45	33	25	12	36	31
24	44	33	30	13	36	16	22	17	11	13	8	12	25	30	24
25	52	63	44	14	49	22	19	28	25	32	27	12	38	50	48
26	43	44	54	28	51	35	20	30	36	5	37	10	29	35	31
27	1	13	29	30	24	34	9	37	36	35	29	28	14	6	12
28	29	39	44	22	43	15	26	24	32	39	29	16	25	38	43
29	26	28	41	39	54	50	11	26	46	52	46	26	38	40	20
30	48	42	47	57	51	44	34	45	34	45	37	37	43	44	44
31	100	48	57	22	53	36	26	19	22	35	41	24	52	64	35
32	48	100	55	24	41	14	8	39	24	16	56	0	52	56	58

33	57	55	100	35	60	33	24	31	40	31	61	21	59	57	35
34	22	24	35	100	40	34	11	41	25	35	45	16	24	22	18
35	53	41	60	40	100	38	2	18	45	40	57	32	56	50	37
36	36	14	33	34	38	100	22	33	37	47	31	28	38	31	15
37	26	8	24	11	2	22	100	41	11	26	2	-5	11	9	26
38	19	39	31	41	18	33	41	100	21	19	34	10	29	18	39
39	22	24	40	25	45	37	11	21	100	27	42	23	26	18	28
40	35	16	31	35	40	47	26	19	27	100	31	41	43	41	33
41	41	56	61	45	57	31	2	34	42	31	100	19	56	48	41
42	24	0	21	16	32	28	-5	10	23	41	19	100	23	22	16
43	52	52	59	24	56	38	11	29	26	43	56	23	100	63	34
44	64	56	57	22	50	31	9	18	18	41	48	22	63	100	30
45	35	58	35	18	37	15	26	39	28	33	41	16	34	30	100

Appendix 6: Participant's Loadings on Rotated Factors

Factor Matrix with an X Indicating a Defining Sort

	Loadings						
QSORT	1	2	3	4	5	6	7
1	0.1296	0.6168	-0.4718	0.3386	0.2299	0.0156	0.0320
2	0.6555X	0.2199	0.2334	0.0050	0.1256	0.2329	0.2568
3	0.3555	0.1548	0.0839	0.4497	0.0127	-0.0267	0.2185
4	0.5087	0.2041	0.0961	0.1264	0.3036	0.2899	0.2310
5	0.3520	0.4930	0.1937	0.2373	0.1059	0.3904	-0.0673
6	0.6738X	-0.0944	0.2098	0.0965	-0.0812	0.1216	0.1142
7	0.4622	0.1769	0.3712	0.4772	0.0116	0.2955	0.1042
8	0.6687X	-0.0380	0.1351	0.4732	0.0184	0.0256	0.2705
9	0.4737	0.0333	0.4760	0.3045	0.1658	-0.1472	0.1352
10	0.2567	0.0571	-0.1874	0.1395	-0.0051	0.7381X	0.0019
11	0.6925X	0.1508	0.2643	0.0442	0.0147	0.0195	-0.2016
12	0.2204	-0.0919	0.7216X	-0.0215	0.0168	-0.0998	0.1563
13	0.3851	0.0066	0.5920X	0.0228	0.3298	0.0653	-0.0781
14	0.3052	-0.1212	0.6256X	0.1723	-0.0310	-0.0267	0.3205
15	0.5190X	-0.2510	0.1680	0.0800	0.0606	0.1400	0.0734
16	0.4628X	0.2693	0.1358	0.2808	0.0592	0.0402	0.1371
17	0.8175X	0.2327	0.0602	0.0826	0.0844	0.0185	0.1161
18	0.5447	0.5369	0.0813	0.2037	-0.1106	0.2356	0.1153
19	0.0582	0.6465X	-0.0996	0.1297	-0.0898	0.1799	0.2463
20	0.0031	0.2844	0.0448	-0.1555	0.7230X	-0.0034	0.0201
21	-0.0252	0.7437X	-0.0944	-0.0376	0.2390	0.0023	-0.0730
22	0.1606	0.5845	-0.2367	0.0228	0.5017	-0.0770	0.0826
23	0.6097X	0.1239	0.2433	0.2492	0.1160	0.1470	0.1926

24	0.0678	0.2772	0.0114	0.1398	0.5263X	0.3629	0.1221
25	0.0138	0.4610	-0.0244	0.4607	0.3221	0.1201	0.1791
26	0.1795	0.6531X	0.2991	0.2104	0.2869	-0.0691	-0.0449
27	0.4449	0.2763	0.2826	-0.0016	-0.2321	-0.3727	0.1616
28	0.1210	0.1104	0.2555	0.7098X	-0.0809	0.1689	0.1057
29	0.3089	0.4189	0.2064	0.0034	0.0705	-0.2487	0.4965
30	0.4616	0.2491	0.1394	0.2870	0.3286	0.0215	0.4007
31	0.1092	0.4102	0.0008	0.3017	0.3477	0.4041	0.3864
32	0.1060	0.4964	-0.3057	0.6428X	0.1031	0.0114	0.1364
33	0.1799	0.6302X	0.0997	0.3950	0.1028	-0.0064	0.2735
34	0.6586X	0.2283	0.0046	-0.0128	0.0189	-0.0325	0.2448
35	0.1583	0.6690X	0.2124	0.1737	0.0618	0.1286	0.4013
36	0.2699	0.0947	0.3076	0.0460	0.2497	-0.2700	0.5957X
37	0.2719	-0.2298	0.2376	0.4108	0.5937	-0.1199	-0.0299
38	0.6723X	0.1001	-0.1696	0.3458	0.2367	-0.2488	0.0285
39	0.2067	0.3701	0.5015	0.2527	-0.0443	-0.1684	0.1151
40	0.2588	-0.0232	0.2198	0.2536	-0.0480	0.0350	0.7192X
41	0.3562	0.5066	-0.0168	0.3482	-0.1758	-0.1108	0.3201
42	0.1671	0.0777	0.3447	-0.0953	-0.0715	0.2853	0.5098X
43	0.0833	0.3658	-0.1727	0.3441	0.0616	0.0037	0.6334X
44	0.0500	0.3970	-0.0926	0.3857	0.0896	0.2841	0.5193
45	0.2090	0.2185	0.0165	0.6653X	0.0498	0.0860	0.0711

% expl.Var.						
15	13	8	9	6	5	8

Appendix 7: Enactment Summaries

1: A Modern, Independent and Equal Medicine: Chinese medicine is a treasure house that only we (Chinese medicine practitioners) can select from and offer to biomedicine.

Here there is an acceptance of, but not a reliance on using biomedical techniques. These are viewed as useful in practice and do not raise any theoretical problems. It is concerned with the identity of Chinese medicine doctors as equals to biomedical doctors. Chinese medicine methods are given privilege, whilst at the same time using biomedical methods which are mere aids to Chinese medicine. There is a sense that these doctors have unique access to Chinese medicine that biomedical doctors cannot understand, yet Chinese medicine doctors also know biomedicine as biomedical doctors do. The implication is that biomedicine needs Chinese medicine doctors; a stamp of independent authority. This account of Chinese medicine is asserting its ability to make use of without *having* to make use of such information

2: A Classically Wise Medicine: Chinese medicine is a treasure house that once opened needs classical strategies for using the contents.

Here biomedicine and Chinese medicine are seen as parallel not complementary practices. It views modern technologies such as x-rays or scans as belonging to modernity and as such, are as much part of Chinese medicine as part of biomedicine. Whilst treating empirical symptoms it represents an expanded phenomenological way of knowing the patient incorporating, for example, looking at the patient via x-rays etc. There is the knowledge that there are multiple bodies of knowledge as science is also multiple. There is confidence that Chinese medicine is a valid alternative rather than complement to biomedicine.

3: A Biomedical Resource: Chinese medicine is a treasure house to be plundered.

Biomedical knowledge is prioritised as reality and *qi* is considered irrelevant. Chinese medical knowledge is only valid within a materialistic, mechanical, reductionist framework. Hence Chinese medicine is here viewed as something to be analysed and broken apart, in much the way that pharmaceutical companies look to indigenous medicines to ‘discover’ new drugs. There is no interest in the system of knowledge that came to know that this herbal formula could treat a particular condition. All that doesn’t fit into useful add-ons to biomedical practice is dismissed. Chinese medicine is seen entirely through the gaze of biomedicine.

4: A Grand Narrative: Chinese medicine is a treasure house so vast that its riches will constantly amaze us.

This enactment claims that clinical practice demands Chinese medicine skills. This is since only Chinese medicine recognises *qi* with the immaterial being considered essential for understanding health and illness. Thus biomedicine can be an add-on to Chinese medicine but can never replace it as it contains only partial knowledge. Chinese medicine is considered superior to the more basic biomedicine. Where biomedicine is used it is incorporated into the concepts of Chinese medicine such as describing a herbs action energetically rather than pharmacologically.

5: A Way of Being: Chinese medicine is a treasure house that is preserved by its ability to remain hidden, ready to re-emerge given the right conditions.

Purist practitioners who value knowledge directly transmitted from teachers. It looks to the past for knowledge and shuns the new, aiming to preserve Chinese medicine as a distinct practice with reclaimed traditions. There is a confidence in Chinese medicine knowledge as complete. Here Chinese medicine is a way of being that is integral to its success; a path that cannot be strayed from. Biomedicine is respected yet it is considered incomparable and irrelevant to Chinese medicine.

6: A Pragmatic Blend: Chinese medicine is a treasure house that is continuously added to and repackaged.

This enactment is one operating in an influential position in relation to other enactments and in the wider socio-political sphere in the West. Promotion of the profession rather than of individual practitioners is emphasised with Chinese medicine presented as a valid practice for the modern world. It has the ability to assimilate both other Chinese medicine viewpoints as well as aspects of biomedicine, particularly its modern technologies. There is the understanding that together, a clearer, more complete picture is available to the practitioner. The relationship between the systems is viewed as non-conflicting; they complement each other.

Appendix 8: Publications Completed During PhD Studies

Book Chapters:

WARD, T. (2011a). Multiple Enactments of Chinese Medicine. *In*: Scheid, V. & MacPherson, H. (eds.) *Integrating East Asian Medicine into Contemporary Healthcare.* Edinburgh, Elsevier.

WARD, T. (2012 – in press). Negotiating Contradictory Information in Chinese Medicine Practice. *In*: Hendry, J. & Fitznor, L. (eds.) *Anthropologists, Indigenous Scholars and the Research Endeavour: Seeking Bridges toward Mutual Respect.* New York, Routledge.

Journal Papers:

SCHEID, V., WARD, T., WUNG-SEOK, C., KENJI, W., XING, L. (2010a) The Treatment of Menopausal Symptoms by Traditional East Asian Medicines: Review and Perspectives, *Maturitas*, 66, 111-130

SCHEID, V., WARD, T. & Tuffrey, V. (2010b). Comparing TCM Textbook Descriptions of Menopausal Syndrome with the Lived Experience of London Women at Midlife and the Implications for Chinese Medicine Research, *Maturitas,* 66**,** 408-416.

WARD, T., SCHEID, V. & TUFFREY, V. (2010). Womens Mid-Life Health Experiences in Urban UK: an International Comparison. *Climacteric,* 13**,** 278-288.

Vignettes:

WARD, T. (2011b). More Like Hairdressing than Medicine. *In*: Scheid, V. & MacPherson, H. (eds.) *Integrating East Asian Medicine into Contemporary Healthcare.* Edinburgh, Elsevier.(Vignette).

WARD, T. (2011c). A Research Oxymoron: Objectifying Human Skills. *In*: Scheid, V. & MacPherson, H. (eds.) *Integrating East Asian Medicine into Contemporary Healthcare.* Edinburgh, Elsevier.(Vignette).